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REFERENCE AUTHORS

Xu,J., Mitcham,J.L., Harlocker,S.L., Dillon,D.C., Secrist,H., Lodes,M.J., Algate,P.A., Fling,S.P., Mannion,J., Benson,D.R. and Carter,D.

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

RESULT 1 AX440456 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM	W44444	042240	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Result Sc NO. Sc 1 75 2 75 2 75 3 74 4 74 5 59 6 59
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Homo sapiens gastric adenocarcinoma
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/protein_id="BaA76498.1"
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Sequence 17:
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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/db_xref="taxon:9606"
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Bornhauser, B.C., Olsson, P.-A. ai NSAP is a novel saposin-like prostimulates neurite outgrowth
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                                                                                                                                                                                                                                             Submitted (13-APR-2001) Neuroscience, Husargatan 3, Uppsala 75123, Sweden Location/Qualifiers
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Olsson, P.-A. and Lin
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                                                                                                                                                   /organism="Homo sapiens"
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/map="12915"
419...967
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VDPKKTIQMGSFRINPDGSQSVVEVPYARSEAHLTELLEEICDRMKEYGEQIDPSTHR
KNYVRVVGRNGESSELDLQGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK
                                                                                                  /note="NSAP; encodes a putative ER retention /codon_start=1
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saposin-like protein
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                          GGGCTCTGGTGGATGAATTAGAGTGGGAAATTGCCCGCGTGGACCCCAAGAAGACCATTC
                                                          GGGTCCTGCTGGGAACTGCCTGGGCTCGAAGGAGCCAAGATCTACACTGTGGAGCTTGCA
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CAAAGTGAAAGTCCAGCGGTCTGCCAGCGCTTGGGCCACGGCGGCGGCCCTGGGACCAAA 77
Direct Submission
Direct Submission
Submitted (22-MAY-2001) National Institutes of Health, Mammalian Submitted (22-MAY-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Institutes, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Clone distribution: MGC clone distribution information can through the I.M.A.G.E. Consortium/LLML at: http://image.lln Series: IRAK Plate: 5 Row: b Column: 23
This clone was selected for full length sequencing because passed the following selection criteria: matched mRNA g1: 9
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium DNA Sequencing by: Baylor College of Medicine Humar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu,
Yoon, V.S., Kowis, C.R., Lawrence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lothar H
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Contact: MGC he
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                                                                                                                                                                                                                                                                                                         /product="transmembrane protein 4"
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/db_xref="GI:14198401"
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VDPKKTIQMGSFRINPDGSQSVVEVPYARSEAHLTELLEEVEDELIEFFSREADNVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Vector: pCMV-SPORT6" 115. .663
                                                                                                                                                                                                                                                                                              DKLCSKRTDLCDHALHRSHDEL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                              /codon_start=1
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                                                                                                                                                                                        Score 590.4;
Pred. No. 1.1
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Martin,
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R.G., Muzny,
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RS MuznyD. M. Adams (C. Adio-Oduola, B., Ali-osman, F.R., Allen, C., Alabrooke, S.L., Amaratunge, H.C., Are, J.R., Banks, T., Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bomnin, D., Bouck, J., Bowle, S. Brieva, M., Brown, E., Brown, M., Bryant, N.P., Buhay, C., Burch, P., Burkett, C., Burrell, K.L., Byrd, N.C., Carron, T.F., Cavazos, S.R., Chacko, J., Chavez, D., Chen, G., Chen, C., Chen, C., Chen, C., Chen, C., Chen, C., Chen, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J., Barnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Hennandez, O., Hodgson, A., Hogues, M., Holloway, C., Hollins, B., Homsi, F., Howard, S., Huber, J., Hoyes, M., Holloway, C., Jackson, L., Locobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Karlsson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Kareshi, A., Landry, N., Leal, B., Lewis, L.C., Lewis, L., Locado, R.J., Lu, J., Lucler, R., Luna, R., Mastinez, E., Massey, E., Mawhiney, E., McLeed, M.P., Meador, M., Manch, P., Masdor, M., Miner, G., Miner, Z., Mitchell, T., Mohabbat, K., Manch, M., Manch, P., Martin, R., Matchell, T., Mohabbat, K.,
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (19-OCT-1999) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Jul 13, 2001 this sequence version replaced gi:14547727.
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Mguyen,A., Nguyen,N., Nguyen,N., Nickerson,E., Nwokenkwo,S.,
Oguh,M., Okwoonu,G., Oragunye,N., Oviedo,R., Pace,A., Payton,B.,
Peery,J., Perez,L., Peters,L., Pickens,R., Primus,E., Pu,L.L.,
Petery,J., Rives,M., Rojas,A., Rojubokan,I., Rolfe,M.,
Quiles,M., Ren,Y., Rives,M., Rojas,A., Rojubokan,I., Rolfe,M.,
Ruiz,S., Savery,G., Scherer,S., Scott,G., Shen,H., Shooshtari,N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center project name: HMKZ

Center clone name: RP11-764L14

Center clone name: RP11-764L14

Center clone name: RP11-764L14

Sequencing vector: M13; L08821

Chemistry: Dye-terminator Big Dye: 100% of reads
Assembly program: Phrap; version 0.99039

Consensus quality: 161278 bases at least 030

Consensus quality: 170806 bases at least 030

Consensus quality: 174843 bases at least 020

Estimated insert size: 168803; sum-of-contigs estimation

Quality coverage: 5.8x in 020 bases; sum-of-contigs estimation

Quality coverage: 5.8x in 020 bases; sum-of-contigs estimation
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*NOTE: This is a 'working draft' sequence. It currently

*consists of 5 contigs. The true order of the pieces

*consists of 5 contigs. The true order of the pieces

*is not known and their order in this sequence record is

*arbitrary. Gaps between the contigs are represented as

*runs of N, but the exact sizes of the gaps are unknown.

*This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      * NOTE: Estimated insert size may differ from sequence length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          as soon as it is available and the accession number will be preserved.
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                                                                                                                                                                                     /chromosome="12"
                                                                                                                                                                                                                  /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                Location,
                                                                                                                                                        /clone="RP11-764L14"
                                                                                                                              30922
                                                                                                                                                                                                                                                                                                                                                             108229: contig of 108229 bp in length 108329: gap of unknown length 150246: contig of 41917 bp in length 150346: gap of unknown length 153410: contig of 3064 bp in length 153510: gap of unknown length 155739: contig of 2229 bp in length 155839: gap of unknown length 158839: gap of unknown length
                                                                                                                                                                                                                                                                                      .158198
   73.3%;
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Score 590.4; DB 2; Pred. No. 3.2e-141;
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Lehner,J.

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AF186115.1
  Mus musculus putative Unpublished 2 (bases 1 to 1017)
                                       Sheppard, P., Jelinek, L.,
                                                  Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; 1 (bases 1 to 1017)
                                                                                  Mus musculus.
                               O'Hara, P.
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                                                 TTTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGCAGTAAGCGAACAGATCTTTGTG
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ACCATGCCCTGCACATATCGCATGATGAGCTATGAACCACTGGAGCAGCCCAC----
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657; Conserv
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                                                                                                                                                                   Direct Submission
Submitted (14-SEP-1999) Biomolecular In
Inc., 1201 Eastlake Ave. East, Seattle,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /translation="MKGWGWLALLLGVLLGTAWARRSQDLHCGACRALVDELEWEIAR VDPKKTIQMGSFRINPDGSQSVVEVPYARSEAHLTELLEEVCDRMKEYGEQIDPSTHR KNYVRVVSRNGESSELDLQGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK DKLCSKRTDLCDHALHRSHDEL"

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/product="putative secreted
/protein_id="AAF01433.1"
/db_xref="G1:6014636"
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/db_xref="dbEST:AA049839"
/db_xref="taxon:10090"
/clone="IMAGE:476061"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (14-SEP-1999) Biomolecular Informatics, ZymoGenetics, Inc., 1201 Eastlake Ave. East, Seattle, WA 98102, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            O'Hara, P
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Sheppard, P., Jelinek, L., Whitmore, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
1 (bases 1 to 649)
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VDPKKTIQMGSFRINPDGSQSVVEVTVTVPPNKVAHSGFG"
150 c 171 g 149 t 4 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="dbEST:R15306"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                             /product="putative secreted protein ZSIG9"
/protein_id="AAF01431.1"
/db_xref="GI:6014632"
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                                                                                                                                                                                                                                                                                                                                                            Through the I.M.A.G.E. Consortium/LINI 11 http://1 Series: IRAL Plate: 5 Row: p Column: 13 This clone was selected for full length sequencing passed the following selection criteria: matched mR Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: nisc_mgc@nhgri.nih.gov
Shevchenko,Y., Wetherby,K.D., Beckstrom-Sternberg,S.M.,
Benjamin,B., Blakesley,R.W., Bouffard,G.G., Brinkley,C., Brooks,S.,
Dietrich,N.L., Guan,X., Gupta,J., Ho,S.-L., Karlins,E., Legaspi,R.,
Lim,M., Maduro,Q.L., Masiello,C., Mastrian,S.D., McCloskey,J.C.,
McDowell,J., Pearson,R., Snyder,B., Stantripop,S., Thomas,P.J.,
Tiongson,E.E., Touchman,J.W., Tsurgeon,C., Vogt,J.L., Walker,M.A.,
Zhang,L.-H. and Green,E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (17-NOV-2000) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Clone distribution: MGC clone distribution through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequencing Center (NISC),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NIH-MGC Project URL: http://mgc.nc1.n1h.gov
Contact: MGC help desk
Email: cgapbs-r@mail.n1h.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Web site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaithersburg, Maryland;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA Sequencing by: National Institutes
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Mammalia; Eutheria;
1 (bases 1 to 824)
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IMAGE:3344788,
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                   /translation="MKGWGWLALLLGALLGTAWARRSQDLHCGACRALVDELEWEIAQ
VDPKKTIQMGSFRINPDGSQSVVEVTVTVPPNKVAHSGFG"
194 c 233 g 176 t
                                                                             /product="transmembrane protein
/protein_id="AAH01027.1"
/db_xref="G1:12654403"
                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/db_xref="LocusID:10330"
/db_xref="taxon:9606"
                                                                                                                                                                                                       /tissue_type="Eye, reti
/clone_lib="NIH_MGC_16"
/lab_host="DH10B-R"
                                                                                                                                                                                   /note="Vector:
                                                                                                                                                                                                                                                                   /clone="MGC:1545 IMAGE:3344788"
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                                                                                                                              GCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAATTGCCCCAGGTGGACCCCAAGAAG
                                                     CTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGA 190
                                                                                                                                                                   GACCAAAGGTGGAGCAACCCCGTTACCCTAAARATGAAAGGCTGGGGTTGGCTGGCCCTG 130
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Seguence 228 from Paten:
AX440375
AX440375.1 GI:21665185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent: WO 0190154-A 228 29-NOV-2001; CORIXA CORPORATION (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xu,J., Mitcham,J.L., Harlocker,S.L., Lodes,M.J., Algate,P.A., Fling,S.P.,
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Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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           Submitted (11-MAR-2000) Human Genome Sequencing Center, Depa of Molecular and Human Genetics, Baylor College of Medicine, Baylor Plaza, Houston, TX 77030, USA
                                                                     Worley, K.C.
Direct Submission
                                                                                                                            Unpublished
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                                                                                                                                                 Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens chromosome 12 clone RP11-348M3, WORKING SEQUENCE, 12 unordered pieces.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Allen, C.,

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                                                                                                                                                 BASE COUNT
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                                                                          Query Match
Best Local Similarity
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306 AGGTGCCTTATGCCCGCTCAGAGGCCCACCTCACAGAGCTGCTGGAGGAGATATGTGACC 365
                                                         206;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Worley,K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 12 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown.

This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         as soon as it is available and the accession number will be preserved.
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Chemistry: Dye-primer Bodipy: 5% of reads
Chemistry: Dye-terminator Big Dye: 95% of reads
Chemistry: Dye-terminator Big Dye: 95% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 141522 bases at least Q40
Consensus quality: 147097 bases at least Q30
Consensus quality: 147097 bases at least Q30
Consensus quality: 150442 bases at least Q20
Estimated insert size: 150706; sum-of-contigs estimation
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Center project name: HALV
Center clone name: RP11-348M3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Web site: http://www.hgsc.bcm.tmc.edu/Contact: hgsc-help@bcm.tmc.edu
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/db_xref="taxon:9606"
/chromosome="12"
                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                             /clone="RP11-348M3"
36207 c 35987 g
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42253: contig
42363: gap of
51104: contig
51204: gap of
68306: gap of
68406: gap of
109481: contig
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SEQUENCE, 5 unordered "12 cl
                                                                                                                                                                                                                                                                       Wu,C., Wu,Y., Wu,Y.F., Zh Weinstock,G. and Gibbs,R.
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                                                                                                                                                                                                                         Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                   Williams, G., Williamson, A., Wleczyk, R., Wooden,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mammalia; Eutheria; Pr
1 (bases 1 to 182350)
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Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Best Local Similarity
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                                           206;
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Baylor Plaza, Houston, TX 77030, USA
On Aug 23, 2002 this sequence version replaced g1:22296903
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3 (bases 1 to
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NOTE: This is a 'working draft' sequence. It currently consists of 5 contils. The true order of the pieces is not known and their order in this sequence record is arbitrary. Caps between the contigs are represented as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            as soon as in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequencing vector: Plasmid;
Sequencing vector: M13;
Chemistry: Dye-primer Bodipy: 15% of reads
Chemistry: Dye-terminator Big Dye: 85% of reads
Chemistry: Dye-terminator Big Dye: 85% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 179279 bases at least Q40
Consensus quality: 180581 bases at least Q20
Consensus quality: 181073 bases at least Q20
Estimated insert size: 174258; sum-of-contigs estimation
Quality coverage: 8x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center project name: HBWI Center clone name: RP11-977G19 Center Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center: Baylor College of Medicine Center code: BCM
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/db_xref-"taxon:9606"
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                                                                                                                                                                                                                                          25.6%;
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2993: gap of unknown length
6686: contig of 3693 in length
6786: gap of unknown length
17251: contig of 10465 bp in length
17351: gap of unknown length
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Bouck, J., Bowle, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P.,
Bouck, J., Bowle, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P.,
Bouck, J., Bowle, S., Brieva, M., Brown, M., Bryant, N.P.,
Carron, T.F., Carter, M., Cavazos, S.R., Chacko, J., Chavez, D.,
Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C.,
Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C.,
Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R.,
Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A.,
Davila, M.L., Davis, C., Davy-Carroll, L., Ding, Y., Dinh, H.H.,
Davila, M.L., Davis, C., Davy-Carroll, L., Ding, Y., Dinh, H.H.,
Davila, M.L., Davis, C., Davy-Carroll, L., Ding, Y., Dinh, H.H.,
Davila, M.L., Davis, C., Davy-Carroll, L., Ding, Y., Dinh, H.H.,
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Dathwaite, K. J., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H.,
Dathwaite, K. J., Delgado, O., Denn, A.L., Ding, Y., Bale, S., Hamilton, K.,
Gorrell, J.H., Garcia, A., Garner, T., Garza, N., Gill, R.,
Gorrell, J.H., Garcia, A., Garner, T., Garza, N., Gill, R.,
Gorrell, J.H., Garcia, A., Hogues, M., Holloway, C., Hollins, B.,
Harris, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J.,
Harris, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J.,
Harris, C., Harris, K., Hart, M., Hoyues, M., Honday, C., Joulins, B.,
Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S.,
Kratovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L., C., Lewis, L.,
Li, J., Li, Karreye, O., Lieu, C., Lieu, S., Korvah, J., Kovar, C.,
Karlsson, E., McHend, R., Martindale, A., Martinez, E.,
Massey, E., McLeod, M., Lucler, R., Luna, R., Ma, J.,
Massey, E., McLeod, M., Meddor, M., Morris, S.,
Miner, G., Metzker, M.,
Massey, E., McLeod, M.P., Meddor, M., Morris, S.,
Morgan, M., Roylooka, D., Pater, M., Okwonu, G.,
Perez, L.,
Peters, L., Dichers, P., Pater, S., Ostale, M., Royloo, H.,
Sutcon, A., Syate, A., Tabor, P., Tam
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                                                                                                                                                                                         Submitted (15-FEB-2000) Human Genome Sequencing Center, Depa: of Molecular and Human Genetics, Baylor College of Medicine, Baylor Plaza, Houston, TX 77030, USA
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Submitted (24-AUG-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One
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Direct Submission
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Homo sapiens chromosome 12 clone RP11-183H16, WORKING DRAFT
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Direct Submission
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Barbaria,J., Benton,J., Bimage,K., Blankenburg,K.,
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                                                 TAGTGGGCCGGAATGGAGATCCAGTGAACTGGACCTACAAGGCATCCGAATCGACTCAG
                                                                                 Baylor Plaza, Houston, TX 77030, USA
On Aug 4, 2002 this sequence version replaced gi:22094227.
                                                                                                                                                                                               Similarity
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NOTE: This is a "working draft' sequence. It currently consists of 9 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
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                                                                                                                                                           188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (26-JAN-2002) Lita Annenberg Hazen Genome Sequencing Center, Cold Spring Harbor Laboratory, 1 Bungtown Road, Cold Spring Harbor, NY 11724, USA
On Jan 26, 2002 this sequence version replaced gi:18201765.
This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least once plasmid subclone or more than one Mil subclone; and the
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/db_xref="taxon:10090"
/clone="RP23-104010"
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Submitted (08-FEB-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA 3 (bases 1 to 101666)
                                                                                                  Worley, K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AC109891 101666 bp DNA linear HTG 13-JUL-2002 Rattus norvegicus clone CH230-319E6, *** SEQUENCING IN PROGRESS ***, 47 unordered pieces.
                                                                                                                                                                     Unpublished
                                                                                                                                                                                                  Direct Submission
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Rattus norvegicus
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Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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Submitted (13-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Jul 12, 2002 this sequence version replaced g1:18860222.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 47 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequencing vector: Plasmid;
Chemistry: Dye-terminator Big Dye: 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 60229 bases at least Q40
Consensus quality: 63959 bases at least Q30
Consensus quality: 66730 bases at least Q20
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contig of 1308
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Best Local Similarity 90.3%;
Matches 186; Conservative
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                                       97630
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                                                         TAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCGAATCGACTCAG
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1. 101666
1. organism-"Rattus norvegicus"
/db_xref-"taxon:10116"
/clone-"CH230-319E6"
/a 22934 c 23569 g 23059 t 7.
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76737: contig of 2113 bp
76837: gap of unknown le
80133: contig of 3296 bp
80233: gap of unknown le
83122: contig of 2889 bp
83222: gap of unknown le
83222: gap of unknown le
86731: contig of 3098 bp
9029: contig of 3098 bp
9029: contig of 3078 bp
93107: contig of 3078 bp
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97419: contig of 4212 bp
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97690 TTGTCGGCCGGAACGGAGGATCCAGTGAACTAGACTTACAGGGTATCCGATTCAGATTCAG 97749
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97775

Search completed: March Job time: 2658.55 secs 30, 2003, 20:19:59

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Listing first 45 summaries
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

9	8	7	6	_U	4	ω	N	_	Result
702.4	749.4	749.4	750.4	750.4	750.4	750.4	804.6	805.6	Score
87.1	93.0	93.0	93.1	93.1	93.1	93.1	99.8	100.0	Query Match
714	1210	1180	814	814	814	814	806	806	Query Match Length DB
20	22	20	24	24	24	21	20	21	:
AAX97884	AAS21330	AAX22112	ABK09772	ABL41995	ABK52765	AAZ38327	AAX06969	AAZ08293	ID
Human secreted pro	Human cDNA sequenc	Human secreted pro	Human ovarian tumo	Nucleotide sequenc	cDNA encoding tran	Human transmembran	Human secretory pe	Human Zsig9 gene e	Description

	ABV59155	23	483	6.3	50.4	45	
	ABL21470	23	3110	6.4	51.4	44	
	ABL21471	23	816	6.6	53.4	43	
Mouse spliced tran	ABN55235	24	. 65	6.7	53.8	42	
Human spliced tran	ABN39205	24	60	7.4	60	41	
	AAS32767	22	2724	15.0	121	40	
Human pancreatic c		22	2724	15.0	121	39	
	AAS32768	22	2532	15.0	121	38	
3	ABA07341	22	2532	15.0	121	37	
	ABL65468	24	126	15.6	126	36	ဂ
Gene #1334 used to	ABN94836	24	126	15.6	126	35	a
_	AAI80994	22	495	16.2	130.8	34	
	ABL65469	24	147	18.2	147	ω ω	
#1335 used	ABN94837	24	147	18.2	147	32	
secreted	AAX39549	20	265	18.8	151.8	31	
secreted	AAC24962	21	215	20.3	163.8	30	
	ABA09488	22	352	21.6		29	
Human ovarian tumo	ABK09691	24	564	29.5	237.8	28	
LO .	AAZ08285	21	415	33.1	267	27	
	AAX06971	20	415	33.2	267.6	26	
	AAL26689	22	1160	33.7	271.4	25	
	AAL25628	22	484	33.8	272.4	24	
Human secreted pro	AAX97883	20	649	34.6	279.2	23	
_	AAX22130	20	1085	35.3	284.2	22	
) secreted p	AAX97836	20	792	35.5	286	21	
cDNA encoding a hu	AAZ10655	20	718	35.7	288	20	
	AAZ08284	21	649	38.1	306.8	19	
	AAX06968	20	649	38.3	308.6	18	
	88	22	595	39.5	318.6	17	
	AAL18023	22	558	41.5	334.8	16	
	AAA43525	21	592	54.5	439.2	15	
transmem	AAZ38326	21	546	67.7	546	14	
ortholog c	AAZ08294	21	1069	74.3	599	13	
Mouse secretory pe	AAX06970	20	1069	4	599	12	
cDNA sequence #398	ABK36007	24	657	0	646.4	11	
Human secreted pro	AAX97837	20	832	S	688.4	10	

ALIGNMENTS

RESULT 1 AAZ08293

AAZ08293 standard; DNA; 806 ВP

AAZ08293;

07-FEB-2000 (first entry)

Human Zsig9 gene encoding secretory protein variant-4.

Secretory protein-9; Human Zsig9; chromosome 12q15 region; variant; overexpression; antagonist; antibody; antisense nucleotide; tumour; treatment; receptor; radio-label; fusion; polypeptide toxin; technique; down-regulation; probe; diagnostic; therapeutic; cancer; brain; liver; detection; stomach; lymphoma; alternative splicing; allelic variation; silent mutation; ds

Homo sapiens

Synthetic.

mat_peptide CDS sig_peptide /*tag= 1 164..649 /note- "0 104..163 Location/Qualifiers /product= "Zsig9 secretory protein variant-4" /note= "Overexpressed in tumours" *tag= o

W09960405-A1

/*tag= c /label= Mature_2sig9_protein_variant-4

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Matches 806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein-9, Zsig9 that arises due to alternative splicing, allelic variation or silent mutations that result in amino acid changes. This sequence is mapped to the human chromosome 12q15 region. It is overexpressed in tumours. Antagonists, antibodies and antisense nucleotides to Zsig9 are useful for detecting and treating tumours. The antagonist may be an antibody or receptor to Zsig9 and it may be radiolabelled or fused to a polypeptide toxin. It can be used for down regulating the overexpression of Zsig9. The gene sequence can be used as nucleic acid probes to detect RNA encoding Zsig9. The Zsig9 sequence facilitates improved diagnostic and therapeutic techniques for detecting and treating cancers, especially of the brain, liver, stomach, lymphoma, etc., at an early stage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Detecting tumors using antibodies, antagonists and nucleotides to secretory protein-9 (2sig9) -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 806 BP; 229 A; 183 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 33-35; 45pp; English.
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                                                                              TGACCGGATGAAGGAGTATGGGGAACAGATTGATCCTTCCACCCATCGCAAGAACTACGT
CTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGAGGAATACGAGGA
                                GGTGGAGGTGCCTTATGCCCGCTCAGAGGCCCACCTCACAGAGCTGCTGGAGGAGATATG
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03-JUL-1997;
03-JUL-1997;
19-MAY-1998;
19-MAY-1998;
17-JUN-1998;
                                  New mammalian secretory peptide-9 (Zsig9) enhancer for placenta, liver and heart, a
                                                                                                                                                                                                                                      CDS
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                                                                                                                                                                                                                                                                       growth enhancer;
                                                                            Jelinek
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            73-74; 85pp;
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98US-0085983.
98US-0089899.
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97US-0051704.
97US-0888088.
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          Query Match
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                                                                                                                                                                                  This sequence represents the human cDNA clone HP10390 which encodes a 20 kD protein with one putative transmembrane domain in the N-terminus. The cDNA was isolated from a human stomach cancer cell line cDNA library. The protein has no homology with any known protein. The protein may be used to raise specific antibodies, as assay reagents, as diagnostic tissue markers, for the isolation of cognate receptors, ligands and binding proteins, and as biologically active agents. Nucleotides encoding the protein may be used as primers and probes or antisense molecules, and in gene therapy. Cells transformed with these nucleotides may be used to screen for agonists and antagonists
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(PROT-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human proteins with transmembrane domains, involved in control of cell prolliferation and differentiation, useful for treating e.g. cancer or inflammation -
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                                                                                                                                                                                                                                                                                                                                                 The invention relates to modulators of a cancer-related genes. Also CC described are: (1) processes for identifying an anti-neoplastic agents comprising contacting a cell exhibiting neoplastic activity with a CC compound first identified as a cancer related gene modulator, and CC deternining the cancercous state of a cell by determining an increase in the neoplastic activity. (2) a process for CC determining the cancercous state of a cell by determining an increase in CC expression relative to a known non-cancerous cell indicates a cancer or cell correction of a cell by determining an increase in CC state or potentially cancerous state. The anti-neoplastic agent is CC useful for treating cancer or for protecting an animal against cancer. The immunogenic composition is also useful for treating cancer in an CC animal, where the composition elicits the production of cytotoxic T lymphocytes specific for the immunogenic composition. Preferably, the CC animal is a human. The cancer-linked genes and polypeptides are also useful as targets for cancer therapy or chemotherapy. The present CC sequence represents a cancer-linked gene located on chromosome 12, which encodes transmembrane protein 4.
                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 754; Conser
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11-CCT-2000;

11-CCT-2000;

12-CCT-2000;

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12-CCT-2000;

16-CCT-2000;

19-CCT-2000;

19-CCT-2000;

31-CCT-2000;
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P-PSDB;
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                                                                                                                                                                                                                                                                                                                                                 Sequence
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2000US-239805P.

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2000US-241682P.

2000US-241723P.

2000US-244932P.
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                                 Antibody preparation by inoculation of an animal expressing a fusion protein of an antigen on the transmembrane domain for use as drugs, diagnostic
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24-AUG-2000; 2000JP-0254407
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                                        ACTGGCTTGATGGATCACCCCCAGGAGGGGAAAATGGTGGCAATGCCTTTTATATATTAT
                                                                                    CTTTGTGACCATGCCCTGCACATATCGCATGATGAGCTATGAACCACTGGAGCAGCCCAC
                                                                                                                                            GAATTCTTTTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGCAGTAAGCGAACAGAT
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                                                                                                                                                                                                                                                                                                                                                        Query Match
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                                                                                                                                                                                                                                                                                                                                                                                       and for treating ovarian cancer in a patient. An antigen presenting cell that expresses the sequences is useful for treating ovarian cancer by incubating CD4+ and/or CD8+ T cells isolated from a patient. The T cells can then be proliferated and administered to the patient to inhibit the development of cancer. The DNA sequences are useful as probes or primers for nucleic acid hybridisation, to direct expression of a polypeptide in appropriate host cells. Detecting the presence of a cancer in a patient involves obtaining a biological sample from the patient, contacting the amount of protein that binds to the agent, comparing the amount of protein that binds to the agent comparing the amount of cancer in that binds to the agent comparing the presence of cancer. Sequences ABK09464-ABK09802 represent PCR primers and CDNA molecules encoding ovarian tumour proteins of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-JUN-2000;
21-JUN-2000;
03-AUG-2000;
01-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to an isolated polynucleotide encoding a polypeptide comprising a portion of an ovarian tumour protein. The sequences of the invention are useful for stimulating an immune response and for treating ovarian cancer in a partiant in a cancer in a partiant in a pa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 253-254;
                                                                                                                                                                                                                                                                                                                                                     Sequence
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                                                                                                                                                                         therapy;
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PA, Fling
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herapy; CD4+ T cell; CD8+ T cell; PCR primer.
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                   12-SEP-1997;
01-JUL-1997;
01-JUL-1997;
12-SEP-1997;
                                                                                                                                                    Human; secreted protein; gene therapy; protein therapy; tissue; cancer; tumour; neurodegenerative disorder; leukaemia; autoimmune disease; AIDS developmental abnormality; foetal deficiency; Alzheimer's disease; cognitive disorder; schizophrenia; immunological disorder; mood disorde immune deficiency disease; respiratory disorder; arthritis; skeletal; haematopoietic disorder; neural; osteoporosis; metabolic disorders; cardiovascular; endocrine; gastrointestinal; asthma; diagnosis; ds.
                                                                      30-JUN-1998;
( HUMA - )
                                                                                            14-JAN-1999
                                                                                                               WO9901020-A2
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97US-0051480.
97US-0058598.
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The invention relates to nucleic acid sequences (AAX22111 to AAX22134) cc encoding human secreted proteins (AAY01135 to AAY01158). The secreted protein gene sequences are deposited with the ATCC under deposit number CC 209118. Host cells comprising recombinant vectors containing the cucleic acid sequences are used for the recombinant production of the CC secreted proteins. The polynucleotide and amino acid sequences are useful for preventing, treating or ameliorating medical CC conditions e.g. by protein or gene therapy. Pathological conditions can be also diagnosed by determining the amount of the new polypeptides in a CC sample or by determining the presence of mutations in the new cc polynucleotides. Specific uses are described for each of the CC cancer, tumours, developmental abnormalities and foetal deficiencies, autoimmune diseases, lymphomas, Alzheimer's and cognitive disorders, autoimmune diseases, lymphomas, Alzheimer's and cognitive disorders, cc schizophrenia, immunological disorders, immune deficiency diseases (AIDS), mood disorders, neural disorders, arthritis, asthma, cc stepporosis, metabolic disorders, cardiovascular disorders, endocrine cdisorders or gastrointestinal disorders, skeletal disorders, endocrine costeoporosis, metabolic disorders, cardiovascular disorders, endocrine condentifying their binding partners. The polypeptides are also useful condens and clone identification).
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DB; AAY01136, AA
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(GETH) GENENTECH INC

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CC AAS21244-AAS21518 encode for novel human secretory and transmembrane CC PRO polypeptides. The PRO polypeptides are useful to detect other CC PRO polypeptides, to link bioactive molecules to cells expressing CC PRO polypeptides, to modulate biological activities of cells expressing CC PRO polypeptides, and to detect the presence of mammalian lung, colon, CC breast, prostate, rectal, cervical or liver tumours by comparing PRO CC polypeptide expression in a cell sample to that in a control sample. CC Some of the 275 sequences are also useful to stimulate the release of CC tumour necrosis factor-alpha (TNF-alpha) from human blood, the CC proliferation or differentiation of chondrocytes, the proliferation or CC cartilage, the proliferation of inner ear utricular supporting cells or CC of T-lymphocytes, the release of a cytokine from peripheral blood CC monocytes (PBMCs), or the proliferation of endothelial cells. Some of CC the PRO polypeptides may modulate glucose or free fatty acid uptake by CC skeletal muscle cells or by adipocytes; or inhibit binding of A-peptide CC molecules involved in binding interactions. The polynucleotides encoding PRO polypeptides can be used in assays to identify consideration or knock out animals and can be used in ease RNA/NNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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P-PSDB; AAU12258.
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GGCCGGAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCGAATCGACTCAGATATT
                                       CTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCCTCGGAAGCAACCAGAATCTCCACTGTGGA 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACCAAAGGTGGAGCAACCCCGTTACCCTAAARATGAAAGGCTGGGGTTGGCTGGCCCTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       secretory and transmembrane PRO polypeptide used to detect polypeptides, link bloactive molecules to cells expressing eptides, and detect the presence of mammalian tumours e.g. ast, prostate, cervical
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A, Godowski PJ, Gurney AL,
Tumas D, Watanabe CK, Wood
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Pred. No. 2.2e
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17-DEC-1997;
09-FEB-1998;
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                AAX97813-X97906 represent extended cDNA's which encode novel human secreted proteins (see AAY36129-Y36222) and which have cytostatic, thrombotic and osteopathic activity. The extended cDNAs can be used texpress secreted proteins or parts of them or to obtain antibodies capable of binding to the secreted proteins. They may also be used in diagnostic, forensic, gene therapy and chromosome mapping procedures. Uses also include design of expression vectors and secretion vectors.
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17-DEC-1997;
09-FEB-1998;
13-APR-1998;
10-AUG-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 85.4%;
97.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       G; 168 T;
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4.9e-164;
.4.9 12;
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RESULT 11
ABK36007
The present invention relates to the isolation of novel cDNA sequences which encode human secreted proteins. The cDNA sequences have been derived from a variety of human tissues. The invention also provides a method for producing proteins from these polynucleotide sequences. The proteins are useful for identifying compounds that modulate their activity and production. The sequences of the invention are useful for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. multiple sclerosis), blood disorders (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis), infectious disorders (e.g. hepatitis), allergic conditions (e.g. asthma), neurodegenerative disorders (e.g. Alzheimer's disease), liver fibrosis, coagulation disorders (e.g. haemophilia), and tumours. The polynucleotide sequences of the cDNA sequences of the invention that encode for novel human cereated proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jacobs K,
Merberg D,
Clark HF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human secreted protein; hyperproliferative disorder; autoimmune diso
immune deficiency disorder; blood disorder; inflammatory disorder;
infectious disorder; allergic condition; neurodegenerative disorder;
liver fibrosis; coagulation disorder; gene therapy; antimicrobial;
tumour; cancer; hepatotropic; immunosuppressive; antirheumatic; gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Six hundred and twenty three polynucleotides derived from a variety human tissue sources which encode secreted proteins, useful for treating immune deficiencies and disorders such as autoimmune disord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABK36007 standard; cDNA; 657
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Treacy M,
Fechtel K,
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Agostino MJ,
Howes SH, Re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        English.
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J, Bowman MR, Spaulding V, Wong
Resnick RJ, Gulukota K, Graham
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Best Local Sin
Matches 650;
                     mat_peptide
                                                                                                                             Secretory peptid cancer; therapy;
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                                             sig_peptide
                                                                                                                                                                 Mouse secretory peptide-9
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                                                                                                                                                                                                                                     standard; cDNA; 1069
                                                                                                                             peptide-9; Zsig9;
nerapy; diagnosis;
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                     /*tag= b
418..903
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358..417
                                                                    Location/Qualifiers 358..906
          /*tag-
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                                                                                                                                                               (Zsig9) orthologue cDNA
                                                                                                                             growth enhancer; s;
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Pred. No. 1.8e
0; Mismatches
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No. 1.8e-153;

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                                                                                                                                         tumour marker;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This cDNA clone encodes novel mouse secretory peptide-9, or 2sig9 (see AAW88476), an orthologue of novel human Zsig9 (see AAW88469). Thuman Zsig9 is overexpressed in a number of tumours including brain, liver, lung, oesophageal, stomach, colon, rectal, thyroid and lymphoma tumors, and thus can be used as an indicator for cancer. The invention provides polymechetides (see AAW86869-77) including mature polypeptides, other processed forms, variants and the mouse orthologues. The Zsig9 gene, or probes derived from it, can be used to determine if Zsig9 is present on chromosome 10, and if a mutation has occurred. Antibodies raised against Zsig9 can be used as diagnostic agents to determine the presence of Zsig9, and thus the presence of cancer. They can also be labelled with radioisotopes or fused with toxins and used to treat tumours which overexpress Zsig9. Antisense nucleotides derived from Zsig9 proteins can be used to enhance the growth of tumour cells. Zsig9 placenta, heart or liver.
                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local :
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03-JUL-1997;
03-JUL-1997;
03-JUL-1998;
19-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New mammalian secretory enhancer for placenta, 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1069 BP;
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DB; AAW88476.
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 CCCGCTCAGAGGCCCACCTCACAGAGCTGCTGGAGGAGATATGTGACCGGATGAAGGAGT
                                                   GGGTCCTGCTGGGAACTGCCTGGGCTCGAAGGAGCCAAGATCTACACTGTGGAGCTTGCA
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Pred. No. 2.1e-141;
1; Mismatches 86;
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radio-label; polypeptide tox1n; down-regulation; diagnostic;
therapeutic; probe; cancer; brain; liver; detection; stomach
lymphoma; ds.
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1069
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                                                                                     TTTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGCAGTAAGCGAACAGATCTTTGTG
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DB; AAY15136.
                       ACCATGCCCTGCACATATCGCATGATGAGCTATGAACCACTGGAGCAGCCCAC----AC
                                                                        TCTCCAGAGAGGCTGACAACGTTAAAGACAAACTTTGCAGTAAGCGGACAGATCTATGTG
                                                                                                                        CCCTCAAGTTTGCGTGTGAGAGCATTGTGGAAGAATACGAGGATGAGCTTATCGAATTCT
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Pred. No. 2.1e-141;
1; Mismatches 86;
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                                         This sequence represents the coding sequence of human cDNA clone H910390 which encodes a 20 kD protein with one putative transmembrane domain in the N-terminus. The cDNA was isolated from a human stomach cancer cell line cDNA library. The protein has no homology with any known protein. The protein may be used to raise specific antibodies, as assay reagents, as diagnostic tissue markers, for the isolation of cognate receptors, ligands and binding proteins, and as biologically active agents. Nucleotides encoding the protein may be used as primers and probes or antisense molecules, and in gene therapy. Cells transforme with these nucleotides may be used to screen for agonists and antagonist which are potentially useful therapeutically.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (SAGA )
(PROT-)
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                                                                                                                                                                                                                                                                                                                                                    Page 88; 114pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kimura T;
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Score 546; DB 21; Pred. No. 3.9e-1

DB 21;

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CC AAA43426 to AAA45925 represent specifically claimed secreted expressed CC sequence tags (SESTs), isolated from human, mouse, chicken and rat CC tissue sources. The SESTs can have a range of activities depending on the tissues they were isolated from. The activities include: CC chemotactic; proliferative; immunomodulatory; haematopolatic; chemotactic; antibacterial; antifungal; antiviral; antifulamentory; CC chemotatic; antiparkinsonian; antiparkinsoriatic; cerebroprotective; CC antiasthmatic; vulnerary; antifungal; antiviral; antifulabetic; CC anticonvulsant; and antidepressant. The SESTs can be used for gene therapy and in vaccines. The SESTs are useful as probes for the CC identification and isolation of full-length cDNAs and genomic DNA CC molecules which correspond to the SESTs. Proteins encoded by the SESTs CC are useful in assays for determining biological activity and raising CC antibodies. They may be useful for treatment of autoimmune disorders (multiple sclerosis, insulin dependent diabetes), allergic conditions (sathma), myeloid or lymphoid cell deficiencies, wounds, burns, ulcers, CC osteoporosis, osteoarthritis, central nervous system disorders (Alzheimer's, Parkinson's, Huntington's disease, stroke), coagulation CC disease), tumours, bacterial, fungal or viral infections, depression and correspond to AAA45931 represent linker variants which are given in the exemplification of the present invention.
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Merberg D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Isolated polynucleotides, and encoded proteins, comprising secreted expressed sequence tags (sESTs), useful for treating various disorders such as autoimmune, infectious, and central nervous system disorders -
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                                                                                                      GGCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAG
                                                                                                                                                                                                                                TGGAGCAACCCCGTTACCCTAAARATGAAAGGCTGGGGTTGGCTGG-CCCTGCTTCTGGG
                                       CCGCTCAGAGGCCCACCTCACAGAGTTGCTTGAGGAGGTGTGTGACCGAATGAAGGAGTA
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                             -CGGGAACAGATTGA-CCTTCTACCCACCGCAAGAACTACGTACGCGTCGTGAGCCGGAA
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APPLICANT: Theodo
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                                                                   ORGANISM: Cucur
IMMEDIATE SOURCE:
CLONE: Clone pB
                                                                                                               HYPOTHETICAL: NO ANTI-SENSE: NO ORIGINAL SOURCE:
                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 49
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-721-8200
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CLASSIFICATION: 800
PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
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                                                                                                                                                       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1395 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                          NAME: Lee Cheng
REGISTRATION NUMBER:
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                             Length 1395;
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MOLECULE TYPE: CDNA to mRNA
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Cucurbita maxima
HAMEDIATE SOURCE:
CLONE: Clone pB11
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GENERAL INFORMATION:
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Best Local Similarity
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REFERENCE/DOCKET NUMBER: 49,
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-721-8200
                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 1395 base pair
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1289 CTGGAAGTTGCAATTAAAATAAACCCTTTAATATCACATGTTCTTACTTTGCTCAAAAAA 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1289 CTGGAAGTTGCAATTAAAATAAACCCTTTAATATCACATGTTCTTACTTTGCTCAAAAAA 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                            692 CAGGAGGGGAAAATGGTGGCAATGCCTTTTATATATTATGTTTTTACTGAAATTAACTGA 751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      692 CAGGAGGGGAAAATGGTGGCAATGCCTTTTATATATTATGTTTTTACTGAAATTAACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 2033 K S
CITY: Washington
                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX:
                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 202-721-8250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Wenderoth, Lind & Ponack, L.L.P. STREET: 2033 K Street, N.W., Suite 800
                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20006
                                                                                                                                                                                                                                                                                                                                                          nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lee Cheng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/09295306
                                                                                                                                                                                                                                                                                                                                                                           1395 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Theodor LANGE et al. VENTION: GA 20-OXIDASE GENE SEQUENCES (As Amended)
                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IBM Compatible
                                                                                                                                             5.5%;
63.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49/DIV-FD4.5MZ
                                                                                                                              0
                                                                                                                                             Score 44.6; DB 4
Pred. No. 0.0091;
                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1995
                                                                                                                                                       DB 4;
                                                                                                                                                            Length 1395;
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CLONE: Clone pB11
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-734-719-1
                                                     RESULT 5
US-08-232-463-14/c
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US-09-734-719-1
                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 68
Sequence 14, Application US/08232463 Patent No. 5670367 GENERAL INFORMATION:
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Patent No. 6455675
GENERAL INFORMATION:
APPLICANT: Theodor LANGE et al.
TITLE OF INVENTION: GA 20-OXIDA
NUMBER OF SEQUENCES: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                1349
                                                                                                                                                                                                     1289 CTGGAAGTTGCAATTAAAATAAACCCTTTAATATCACATGTTCTTACTTTGCTCAAAAAA 1348
                                                                                                                                                               692 CAGGAGGGGAAAATGGTGGCAATGCCTTTTATATATTATGTTTTTACTGAAATTAACTGA 751
                                                                                                                                                                                                                                                                              Local Similarity 63.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: Lee Cheng
REGISTRATION NUMBER: 40,949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Diskette, 3.5
COMPUTER: IBM Compatible
OPERATING SYSTEM: MS-DOS
SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSE: Wenderoth, Lind & Ponack, L.L.P.
STREET: 2033 K Street, N.W., Suite 800
                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear MOLECULE TYPE: cDNA to mRNA HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: 202-721-8200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
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                                                                                                                              ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 09/295,306 FILING DATE: April 21, 1999 APPLICATION NUMBER: 08/553,367 FILING DATE: NO. 6455675ember 27, APPLICATION NUMBER: PCT/EP94/01864 FILING DATE: May 24, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/734,719 FILING DATE: 13-Dec-2000 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 1395 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 202-721-8250
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20006
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                                                                                                                                                                                                                                                                            Score 44.6; DB 4;
Pred. No. 0.0091;
0; Mismatches 39;
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Matches 5; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
1200
                                                                                                                  1260
                                                                                                                                                                            1320
                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 30
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)836-9300
TELEFAX: (703)683-4109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 26-AUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
FILING DATE:
                                                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: line
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: FALKNER, F. G.
TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
NUMBER OF SEQUENCES: 52
                                                                                       669
                                                                                                                                                                                                  549 TTGAATTCTTTTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGCAGTAAGCGAACAG 608
                                                                                                                                               609
                                                                                                                                                                                                                                                            489 TTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGAGGAATACGAGGATGAACTCA 548
                                                                                                                                                                                                                                                                                                                       429 TGGGCCGGAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCGAATCGACTCAGATA 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
TYPE: n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC COMPUTER: OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Alexandria
STATE: VA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                          ACACTGGCTTGATGGATCACCCCCAGGAGGGGAAAATGGTGGCAATGCCTTTTATATATT 728
                                                                                                                 ATCTTTGTGACCATGCCCTGCACATATCGCATGATGAGCTATGAACCACTGGAGCAGCCC 668
                                                                                                                                                                          22313-0299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            899149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7218 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E: Foley & Lardner
1800 Diagonal Road,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCHEIFLINGER, F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
                                                                                                                                                                                                                                                                                                                                                     Conservative 218; Mismatches 152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                5.58;
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INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1813 base pairs
TYPE: nucleic acid
                                                                            Sequence 1, Application US/08342411A
Patent No. 5639616
                                                                                                                                                                                                                                                                                        Query Match 5.4%;
Best Local Similarity 60.5%;
                                                                   GENERAL INFORMATION:
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PCT-US94-12883-3
                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: 81,
TOPOLOGY: linear
MOLECULE TYPE: DNA
 APPLICANT: LIAO, Shutsung
APPLICANT: SONG, Ching
TITLE OF INVENTION: UBIQUITOUS NUCLEAR RECEPTOR:
TITLE OF INVENTION: COMPOSITIONS AND METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 3, Application PC/TUS9412883 GENERAL INFORMATION:
NUMBER OF SEQUENCES:
                                                                                                                                                  1677 TCCCCCTAGCCCGGGGGACCAGGGGCCTTCCTCTTCCTCTGCTTTTATTTTAATAAAAC 1736
                                                                                                                                                                    REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: ARK
TELECOMMUNICATION IMPORMATION:
TELEPHONE: (512) 418-3000
TELEFAX: (713) 789-2679
                                                                                                                                                                                                                                   685 TCACCCCCAGGAGGGGAAAATGGTGGCAATGCCTTTTATATATTATGTTTTTACTGAAAT 744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: BARBARA S. KITCHELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 10-NOV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: #1.25
SOFTWARE: #1.25
CURRENT APPLICATION DATA:
CURRENT APPLICATION NUMBER: PCT/US94/12883
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: ULL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible operating SYSTEM: PC-DOS/MS-DOS/ASCII SOFTWARE: Patentin Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Houston
STATE: Texas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET:
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                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P.O. Box 4433
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                                                                                                                                                                                                                                                                                                                                            DNA (genomic)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US 08/152,003
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RESULT 8
US-08-496-841C-137
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Best Local Similarity
""+ches 72; Conserva
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US-08-342-411A-1
                                                                                                                                                                                                                                                                               Sequence 137, Application US/08496841C Patent No. 6210919
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC LOSS/MS-DOS
SOFTWARE: Patentin Release #1.0, V
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/342,411A
FILING DATE: 18-ROY-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: KITCHELL. RAPRADADS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1898 base pair
                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                            685 TCACCCCCAGGAGGGGAAAATGGTGGCAATGCCTTTTATATATTATGTTTTTACTGAAAT 744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
         COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-POS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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TELEFAX: 79-0924
SEQ
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ADDRESSEE: Arnold, W
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                       TITLE OF INVENTION: GENETIC SEQUENCES AND PROTEINS RELATED TO ALZHEIMER'S DISEASE
                                                                                                                                                                                                                                     APPLICANT: ST. GEORGE-HYSLOP, PETER H
ROMMENS, JOHANNA M
FRASER, PAUL E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: ARC
                                                                                                                                                                                   NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
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TELEFAX: (713) 789-2679
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ZIP: 77210-4433
APPLICATION NUMBER: US/08/496,841C
                                                                                                               COUNTRY: U.S.A.
                                                                                                                              CITY: New York
STATE: New York
                                                                                                         ZIP: 10022
                                                                                                                                                             STREET:
                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1898 base pairs
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; SEQUENCE DESCRIPTION: SEQ ID NO: 137: US-08-496-841C-137
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Best Local :
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SEQUENCE CHARACTERISTICS:
                        CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Osman Ph.D., Richard Aron
REGISTRATION NUMBER: 36,627
                                                                                                                            SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
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Local Similarity 48.8%;
hes 63; Conservative
                                                                                                                                                                                                                             ZIP: 94111-4187
                                                                                                FILING DATE:
                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                        ADDRESSEE:
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CLASSIFICATION: <UDATOWN>
ATTORNEY/AGENT INFORMATION:
NAME: Paul F. Fehlner, Ph.D.
REGISTRATION NUMBER: 35,135
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                         California
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                                                                                                                                                                                                                                              USA
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/ENTION: ORIGIN OF REPLICATION COMPLEX GENES
EQUENCES: 24
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KOBAYASHI, Ryuji
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LAURENSON, Patricia
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LI, Joachim J
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(212) 75
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                  NUMBER:
                                                                                                             US/08/484,105
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              A-59032/DJB/RAO
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                                                                                                                                            Version #1.30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 62; Conserv
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TELEFAX: (415) 494-877
TELEX: 910 277299
INFORMATION FOR SEQ ID NO:
                                TELEX: 910 277299
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/484,106
                                                                 REFERENCE/DOCKET NUMBER: A-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 494-8700
TELEFAX: (415) 494-8771
                                                                                                                                   CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Osman Ph.D., Richard Aron
REGISTRATION NUMBER: 36,627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                   SEQUENCE CHARACTERISTICS:
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TITLE OF I
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LENGTH: 3214 base pairs
TYPE: nucleic acid
STRANCENESS: double
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TITLE OF INVENTION: ORIGIN OF REPLICATION COMPLEX GENES
NUMBER OF SEQUENCES: 24
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LOCATION:
                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                              STREET: 4 EMDALCAUCE
CITY: San Francisco
                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
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   LENGTH:
                                                                                                                                                                                                                                                                                                                                          94111-4187
                                                                                                                                                                                                                                                                                                                                                                       California
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4 Embarcadero Center,
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3214 base pairs
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KOBAYASHI, Ryuj
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FOSS, Margit
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Pred. No. 0.06;
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er, Suite 3400
                                                                                                                                                                                                                                                       Version #1.30
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RESULT 12
US-09-385-982-389/c
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; LOCATION: (50)...(1285)
US-09-336-643A-82
GENERAL INFORMATION:
APPLICANT: ENDEGE, WILSON O., ET AL.
TITLE OF INVENTION: NOVEL HUMAN GENES
TITLE OF INVENTION: PRODUCTS: II
                                                                                                                          Sequence 389, Application US/09385982
Patent No. 6262334
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US-09-336-643A-82
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 5.2%;
Best Local Similarity 65.3%;
Matches 62; Conservative
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; LOCATION:
US-08-484-106-17
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PRIOR FILING DATE: 1999-01-19
PRIOR APPLICATION NUMBER: PCT/US99/03826
PRIOR FILING DATE: 1999-02-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/336,643A CURRENT FILING DATE: 1999-06-18 PRIOR APPLICATION NUMBER: 60/076,687 PRIOR FILING DATE: 1998-08-07
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENGTH: 3300
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Local Similarity 65.3%;
nes 62; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rutter, Marc
Wang, Jian-Wang
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, Marc
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220..2802
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 42.2; DB 4;
Pred. No. 0.061;
""smatches 33;
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Pred. No. 0.06;
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                         AND GENE EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 3214;
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RESULT 13
US-09-363-708-3
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US-09-385-982-389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 6399747
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3, Application US/09363708 Patent No. 6399747
                                                                                     TELEFAX: (312) 474-044
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 5.2%;
Best Local Similarity 59.1%;
Matches 68; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/385,982
CURRENT FILING DATE: 1999-08-30
EARLIER APPLICATION NUMBER: 09/328,111
EARLIER FILING DATE: 1999-06-08
EARLIER APPLICATION NUMBER: 60/117,393
EARLIER FILING DATE: 1999-01-27
      MOLECULE TYPE:
DESCRIPTION:
                                                                                                                                                   TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EARLIER FILING DATE: 1998-08-31
                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(629)
                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Schmandt, TITLE OF INVENTION: NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
                                            TYPE: nucleic
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 629
                                                 TOPOLOGY:
                                                                                                                                    TELEPHONE:
                                                                                                                                                               NAME: Clough, David W.
REGISTRATION NUMBER: 36,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                           FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          119 CACCATGATGTGAANAGTTTCNCAAATCTTTCAAAATNAAAAGTAATGACTTAGAAACTG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           689 CCCCAGGAGGGGAAAATGGTGGCAATGCCTTTTATATATTATGTTTTTACTGAAATTAAC 748
                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Chicago
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                                                                                                                                                                                                                                                                                                                                                                RY: United States of America
60606-6402
                                                                                                                                                                                                                                                                                                                                                                                             Illinois
                                                                        2246 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                E: Marshall, O'Toole, Gerstein, Murray & Borun
233 South Wacker Drive/6300 Sears Tower
                                                                                                                     (312) 474-0448
                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Schmandt,
                                                                                                                                        (312)
   /desc -
                  CDNA
                                             single
                                                                                                                                   474-6300
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                                                                                                                                                                                                                                                                                 Release #1.0, Version #1.30
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"mouse PAL cDNA"
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                                                                                                                                                           LOCATION: 1..7859
OTHER INFORMATION: /note= "sequence of plasmid pSW6"
US-07-854-596B-4
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                                                                                                         Matches
                                                                                                                     Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                          TELEX: 910-221-5317
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0.
CURRENT APPLICATION DATA:
 5644
                                                    FEATURE:
                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: cDNA
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                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Dawson, Keith M
APPLICANT: Hunter, Michael G
APPLICANT: Czaplewski, Lloyd
                          773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION
                                                                              713
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                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/0 FILING DATE: 03-JUN-1992 CLASSIFICATION: 435
                                                                                                                                                                                     NAME/KEY: misc_feature LOCATION: 1..7859
                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                   STRANDEDNESS: single
                                                                                                                                                                                                                                                                 TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                  TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                       NAME: McDonnell, Joi
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Dr. John J. McDonnell
STREET: Ten South Wacker Drive, Suite 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                               ENGTH:
AAAAAAAAAAAAAAAAAA 5663
                          AAAAAAAAAAAAAAAAGAGA 792
                                                                            ATGCCTTTTATATATTATGTTTTTACTGAAATTAACTGAAAAATATGAAACCAAAAGTA 772
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                                                                                                         56;
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                                                                                                                                                                                                                                                                                                                                                                                                   McDonnell, John
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                                                                                                                                                                                                                                                                               7859 base pairs
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                                                                                                         Conservative
                                                                                                                                                                                                                                           circular
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Proteins and nucleic
                                                                                                                  5.2%;
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                                                                                                      Score 41.6; DB 1;
Pred. No. 0.13;
0; Mismatches 24;
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                                                                                                       Indels
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Search completed: March Job time: 76.7061 secs
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US-08-450-905B-15
                                                                                                                                                                                                                                       US-08-450-905B-15
                                                                                                                                                                                                                                                                                                                                                                                               PILING DATE: 23-DEC-1991

PRIOR APPLICATION DATA:

APPLICATION NUMBER: GB 9221587.0

FILING DATE: 14-OCT-1992

ATTORNEY/AGENT INFORMATION:

NAME: BAKER, HOLLIE L.

REGISTRATION NUMBER: 31,321

REFERENCE/DOCKET NUMBER: 31,321
                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 15,
Patent No. 5
                                                                                                                                                                              Matches
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                                                                                                                  ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                          5644 AAAAAAAAAAAAAAAAAAA 5663
                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 7859 base pair
                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 10 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: (
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APPLICATION NUMBER: 07/982,759
FILING DATE: 08-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                      773
                                                                                                                                                713
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                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE: 26-MAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 60 S
CITY: Boston
                                                                                                                                                                                                                                                                                STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE:
                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
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                                                                                                                                  ATGCCTTTTATATTATGTTTTTTACTGAAATTAACTGAAAAAATATGAAACCAAAAGTA 772
                                                                                      nucleic acid
DEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 b, Application US/08450905B
5856301
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Floppy disk
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                                                                                                                                                                                                                                                                                                                                            ID NO:
             30, 2003, 20:59:05
                                                                                                                                                                                       5.28;
70.08;
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                                                                                                                                                                           Score 41.6; DB Pred. No. 0.13; 0; Mismatches
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                                                                                                                                                                            24;
                                                                                                                                                                                                      Length 7859;
                                                                                                                                                                            Indels
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Published_Applications_Na:*

1: //cgn2_6/ptodata/1/pubpna/U:
2: //cgn2_6/ptodata/1/pubpna/P:
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'Cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
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                                 2003, 20:56:58; Search time 74.3669 Seconds (without alignments) 9222.973 Million cell updates/sec
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                                        0 US-09-864-864-309
US-10-128-072-173
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US-10-175-746-173
US-10-176-918-173
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                                                    Sequence 309, A
Sequence 173, AI
Sequence 173, A
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                  APPLICANT: Mannion, Jane
APPLICANT: Mannion, Jane
APPLICANT: Benson, Darin R.
APPLICANT: Benson, Darin R.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.523
CURRENT APPLICATION NUMBER: US/09/864,864
CURRENT FILING DATE: 2001-05-23
NUMBER OF SEQ ID NOS: 341
SOFTWARE: COTIXA Invention Disclosure Database
SEQ ID NO 309
SEQ ID NO 309
LENGTH: 814
TYPE: DNA
ORGANISM: Homo sapiens
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Patent No. US20020102679A1
GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
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Lodes, Michael J.
Algate, Paul A.
Filing, Steve P.
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10 US-09-880-107-1335
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10 US-09-809-391-39
10 US-09-809-391-105
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10 US-09-764-846-128
9 US-10-091-483-12
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APPLICANT: Zhang
TITLE OF INVENTION:
FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/028,072
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/049911
PRIOR FILING DATE: 1997-06-18
PRIOR APPLICATION NUMBER: 60/056974
                                                                                                            GENERAL INFORMATION:
APPLICANT: Baker, Kevi
APPLICANT: Beresini,
APPLICANT: DeForge, I
APPLICANT: DeForge, I
APPLICANT: DeForge, I
APPLICANT: Genovers
APPLICANT: Goo, Wei-C
APPLICANT: Goddard, A
APPLICANT: Goddwski,
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APPLICANT: Gurney, Au
APPLICANT: Sherwood,
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Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
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Watanabe, Colin I
Wood, William
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Filvaroff, Ellen
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OR APPLICATION NUMBER: 60/063738
OR FILING DATE: 1997-10-29
OR APPLICATION NUMBER: 60/063755
OR FILING DATE: 1997-10-17
OR APPLICATION NUMBER: 60/064248
OR FILING DATE: 1997-11-07
OR APPLICATION NUMBER: 60/064809
OR FILING DATE: 1997-11-12
OR APPLICATION NUMBER: 60/065186
OR FILING DATE: 1997-11-12
OR APPLICATION NUMBER: 60/065846
OR FILING DATE: 1997-11-21
OR APPLICATION NUMBER: 60/066364
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OR APPLICATION NUMBER: 60/066453
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OR FILING DATE: 1997-09-18
OR APPLICATION NUMBER: 60/059352
OR FILING DATE: 1997-09-19
OR APPLICATION NUMBER: 60/05988
OR FILING DATE: 1997-09-24
OR APPLICATION NUMBER: 60/062250
OR FILING DATE: 1997-10-17
OR APPLICATION NUMBER: 60/062285
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OR APPLICATION NUMBER: 60/063045
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RFILING DATE: 1997-09-11
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PRIOR APPLICATION NUMBER: 60// PRIOR FILING DATE: 1998-02-09 PRIOR APPLICATION NUMBER: 60// PRIOR FILING DATE: 1998-02-09

OR APPLICATION NUMBER: 60/0
R FILING DATE: 1997-12-11
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DR FILING DATE: 1997-12-16
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DR FILING DATE: 1998-01-23
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DR FILING DATE: 1998-02-04

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OR APPLICATION NUMBER: 60/085704
OR FILING DATE: 1998-05-15
OR APPLICATION NUMBER: 60/086414
OR FILING DATE: 1998-05-22
OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-22
OR APPLICATION NUMBER: 60/087106
OR FILING DATE: 1998-05-28
OR APPLICATION NUMBER: 60/08026
OR FILING DATE: 1998-05-04
OR APPLICATION NUMBER: 60/080730
OR APPLICATION NUMBER: 60/080730
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OR APPLICATION NUMBER: 60/080731
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OR FILING DATE: 1998-05-07
OR APPLICATION NUMBER: 60/085149
OR APPLICATION NUMBER: 60/085323
OR FILING DATE: 1998-05-12
OR APPLICATION NUMBER: 60/085323
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OR APPLICATION NUMBER: 60/085338
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OR FILING DATE: 1998-04-24
OR APPLICATION NUMBER: 60/083322
OR FILING DATE: 1998-04-28
OR APPLICATION NUMBER: 60/083545
OR FILING DATE: 1998-04-29
OR APPLICATION NUMBER: 60/084600
OR FILING DATE: 1998-05-07
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OR APPLICATION NUMBER: 60/079294
OR FILING DATE: 1998-03-25
OR APPLICATION NUMBER: 60/079663
OR FILING DATE: 1998-02-27
OR APPLICATION NUMBER: 60/079728
OR FILING DATE: 1998-03-27
OR APPLICATION NUMBER: 60/080165
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OR APPLICATION NUMBER: 60/088858
OR FILING DATE: 19/98-06-11
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OR FILING DATE: 1998-06-17
OR APPLICATION NUMBER: 60/089599
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OR APPLICATION NUMBER: 60/089907
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CTTTGTGACCATGCCCTGCACATATCGCATGATGAGCTATGAACCACTGGAGCAGCCCAC
                                AGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGAGGAATACGAGGATGAACTCATT
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FILING DATE: 1998-07-02
APPLICATION NUMBER: 60/091982
FILING DATE: 1998-07-07
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APPLICANT: Beresini, Mauree
APPLICANT: Desnoyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gerritsen, Mary
APPLICANT: Goddard, Audrey
APPLICANT: Goddward, Audrey
APPLICANT: Godowski, Paul J
APPLICANT: Gurney, Austin L
APPLICANT: Sherwood, Steven
APPLICANT: Stewart, Timochy
APPLICANT: Stewart, Timochy
APPLICANT: Tumas, Daniel
                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 753; Conserv
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APPLICANT:
APPLICANT:
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SEQ ID NO 173
LENGTH: 1210
TYPE: 7577
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CURRENT FILING DATE: 2002-04-12
Prior Application removed - See File
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: ACIDS ENCODING THE FILE REFERENCE: P3330R1C17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES TITLE OF INVENTION: ACIDS ENCODING THE SAME
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Goddard, Audrey
Goddwski, Paul J.
Gurney, Austin L.
Sharwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
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Wood, William
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llarity 98.9%;
Conservative
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Pred. No. 5.6e-200;
1; Mismatches 7;
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; ORGANISM: HOMO
US-10-123-904-173
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
                        Query Match
Best Local Similarity
Matches 753; Conserv
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                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/123,904 CURRENT FILING DATE: 2002-04-16
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Wood, William
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Filvaroff, Ellen
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Pred. No. 5.66
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APPLICANT: Beresini, Mau
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APPLICANT: DeForge, Laur:
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APPLICANT: Desnoyers, Lu
APPLICANT: Gao, Wei-Qian
APPLICANT: Gerritsen, Ma
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APPLICANT: Gurney, Austi
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APPLICANT: Smith, Victor
APPLICANT: Stewart, Time
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APPLICANT: Watanabe, Co;
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                                            Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Tinothy A.
                       Tumas, Daniel
Watanabe, Colin K
Wood, William
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Filvaroff, Ellen
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; TYPE: DNA
; ORGANISM: Homo
US-10-140-470-173
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Best Local Similarity
Matches 753; Conserv
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CURRENT APPLICATION NUMBER: US/10/140,
CURRENT FILING DATE: 2002-05-06
Prior Application removed - See Palm c
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
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Pred. No. 5.6e-200;
1; Mismatches 7;
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Application US/10175746 o. US20030027270A1

INFORMATION

Baker, Kevin

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; LENGTH: 1210
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; ORGANISM: HOMO :
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CURRENT FILING DATE: 2002-06-19
Prior Application removed - See File Wrap;
NUMBER OF 550 ID NOS: 550
SEQ ID NO 173
SEQ ID NO 173
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GAATTCTTTTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGCAGTAAGCGAACAGAT
                     AGCGGCACCCTCAAGTITGCGTGTGAGAGCATTGTGGAGGAATACGAGGATGAACTCATT
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Gurney, Austin L.
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Watanabe, Colin K
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; NUMBER OF SEQ ID NOS: 5:
; SEQ ID NO 173
; LENGTH: 1210
; TYPE: DNA
; ORGANISM: Homo Sapien
US-10-176-918-173
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Best Local Similarity
Matches 753; Conserv
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C382
CURRENT APPLICATION NUMBER: US/10/176,918
CURRENT FILING DATE: 2002-06-20
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                                                                  GCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAATTGCCCCAGGTGGACCCCCAAGAAG
                                                                                                                       CTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGA 190
GAGCAGAGGTGGAGCGACCCCATTACGCTAAAGATGAAAGGCTGGGGTTGGCCTGGCCCTG
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                                                     GCATGCAGGGCTCTGGTGGATGAACTAGAATGGGGAAATTGCCCCAGGTGGACCCCAAGAAG
                                                                                                          CTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGA
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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o. US20030027275A1
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Pred. No. 5.6e-200;
1; Mismatches 7;
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RESULT 8
US-10-176-921-173
; Sequence 173, App.
; Publication No. 1
                                                            ; TYPE: DNA
; ORGANISM: HOMU
US-10-176-921-173
                 Query Match
Best Local Sim
Matches 753;
                                                                                                                                                                                          APPLICANT
                                                                                           CURRENT APPLICATION NUMBER: US/10/176,921
CURRENT FILING DATE: 2002-06-20
Prior Application removed - See File Wrap
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
                                                                                                                                                         TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C288
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APPLICANT: Beresini, Ma
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                            Similarity
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Godowski, Paul J.
Gurney, Austin L.
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Wood, William
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                  Conservative
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US-10-137-865-173
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Sequence 173, App
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                            Desnoyers, Luc
Filvaroff, Ellen
Gao, Wei-Qiang
Gerritsen, Mary E.
Goddard, Audrey
Goddwski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
         Stewart, Timothy A. Tumas, Daniel
                                                                                                                           Beresini, Maureen
DeForge, Laura
 Watanabe
                                                                                                                                                                       Application US/10137865
o. US20030032155A1
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Prior Application removed - So
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
ORGANISM: Homo Sapien
US-10-137-865-173
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Best Local S
Matches 753
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APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C154
CURRENT FAPLICATION NUMBER: US/10/137,865
CURRENT FILING DATE: 2002-05-03
CURRENT FILING DATE: ASAA Palm or File Wrapper
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les 753; Conserv
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                                  GTTTTTACTGAAATTAACTGAAAAATATGAAACCAAAAGT
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ilarity 98.9%;
Conservative
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Pred. No. 5.6e
1; Mismatches
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Best Local S
Matches 753
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APPLICANT: Baker, Ke
APPLICANT: Beresin
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RESULT

TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLY
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C162
CURRENT APPLICATION NUMBER: US/10/140,474
CURRENT FILING DATE: 2002-05-06
PTIOT APPLICATION TEMPOVED - See Palm OT File Wrapp
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
ORGANISM: Homo Sapien
US-10-140-474-173 11 CTGGGGCCAAAGTGAAAGTCCAGCGGTCTGCCAGCGCTTGGGCCACGGCGGCGGCCCTGG y Match 93.0%; Local Similarity 98.9%; hes 753; Conservative AGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGAGGAATACGAGGATGAACTCATT 550 GGCCGGAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCGAATCGACTCAGATATT CCTTATGCCCGCTCAGAGGCCCACCTCACAGAGCTGCTGGAGGAGATATGTGACCGGATG GCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAATTGCCCAGGTGGACCCCAAGAAG 250 CTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGA 190 CTTCTGGGGGCCCTGCGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGA GCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAATTGCCCCAGGTGGACCCCCAAGAAG Baker, Kevin Zhang, Zemin Tumas, Daniel Watanabe, Colin K Wood, William Godowski, Paul J. Gurney, Austin L. Gerritsen, Mary E Goddard, Audrey Desnoyers, Luc Filvaroff, Ellen Gao, Wei-Qiang Stewart, Timothy A. DeForge, Laura Smith, Victoria Sherwood, Steven Beresini, Maureen US20030032156A1 . Score 749.4; Pred. No. 5.6e 1; Mismatches DB 9; .6e-200; les 7; POLYPEPTIDES Length 1210; AND 0 NUCLEIC Gaps 370 310 569 749 629 509 869 809 689 0

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; SEQ ID NO 173
; LENGTH: 1210
; TYPE: DNA
; ORGANISM: Homo Sapien
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APPLICANT: Beresini, Mauree
APPLICANT: DeForge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Eller
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Best Local Similarity
Matches 753; Conserv
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                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C251
CURRENT APPLICATION NUMBER: US/10/142,431
CURRENT FILING DATE: 2002-05-10
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                                                 CTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGA
GCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAATTGCCCAGGTGGACCCCCAAGAAG
                                                                                                      GACCAAAGGTGGAGCAACCCCGTTACCCTAAARATGAAAGGCTGGGGTTGGCCCTG
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Watanabe, Colin K
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b. US20030036179A1
                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                Score 749.4; DB 9;
Pred. No. 5.6e-200;
1; Mismatches 7;
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; TYPE: DNA
; ORGANISM: Homo
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                             NUMBER OF SEV
SEQ ID NO 173
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                                                                           APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C211
CURRENT APPLICATION NUMBER: US/10/143,114
CURRENT FILING DATE: 2002-05-09
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                                                     Prior Application NUMBER OF SEQ ID N
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Gurney, Austin L.
Sherwood, Steven
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Watanabe, Colin K
Wood, William
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Gerritsen, Mary E
Goddard, Audrey
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Filvaroff, Ellen
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          Sapien
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NOS: 550
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RESULT 13
US-10-140-002-173
US-10-140-002-173
Sequence 173, Application US/1014(
Publication No. US20030037623A1
GENERAL INFORMATION:
APPLICANT: Barceini, Maureen
APPLICANT: Beforge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Genritsen, Mary E.
APPLICANT: Goddard, Audrey
APPLICANT: Goddard, Audrey
APPLICANT: Goddowski, Paul J.
APPLICANT: Gurney, Austin L.
APPLICANT: Sherwood, Steven
APPLICANT: Sherwood, Steven
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FILE REFERENCE: P3330R1C59
CURRENT APPLICATION NUMBER: US/10/140,002
CURRENT FILING DATE: 2002-05-06
Prior Application removed - See Palm or File Wrapper
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
ORGANISM: Homo Sapien
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Wood, William
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Pred. No. 5.6e
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US-10-142-419-173
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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CURRENT FILING DATE: 2002-05-10
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Similarity 98.9%;
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Godowski, Paul J.
Gurney, Austin L.
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Gerritsen, Mary E.
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Pred. No. 5.6e-200;
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US-10-123-262-173
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APPLICANT: Beresini, Maur.
APPLICANT: DeForge, Laura
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                        CTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGA
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753; Conserv
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
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Wood, William
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Search completed: March 30, 2003, 22:23:35 Job time: 86.3669 secs

BG824549 602728454 BF344334 602014708

601898804 601581586 601447464 603049729 601568370 603193144

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Eukaryota; Metazoa; Chordata; Craniata; Veri
Mammalla; Eutheria; Primates; Catarrhini; H
1 (bases 1 to 1117)
NHI-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammallan Gel
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
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   CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM1968 row: c column: 07
High quality sequence stop: 709.
Location/Qualifiers
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AK007914 Mus muscu

B1523169 603175203

B1522523 603175203

B1522523 603175203

B1522523 603175203

B2042694 ho25b12.x

AK013568 Mus muscu

AK013014 Mus muscu

BQ020508 UI-H-DPO-

AI860382 w102f04.x

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BG403049 60241862
B1762927 603047987
B1791489 1498f09.x
BM83288 K-EST0107
AW16767 xx47e61.x
BM832828 K-EST0107
BM832828 K-EST0107
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B09290767 AGENCOURT
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ACTGGCTTGATGGATCACCCCCAGGAGGGGAAAATGGTGGCGAATGCC---TTTTATATAT 727
                                                                                                                                                  CTTTGTGACCATGCCCTGCACATATCGCATGATGAGCTATGAACCACTGGAGCAGCCCAC
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/clone_lib="NNIH_MGC_41"
/tissue_type="amelanotic melanoma, cell line"
/lab_host="DH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)"
/note="Organ: skin; Vector: pOTB7; Site_1: XhoI; Site_2:
ECORI; CDNA made by Oligo-dT priming. Directionally cloned
into EcoRI/XhoI sites using the following 5' adaptor:
GGCACGAG(G). Library constructed by Ling Hong in the
laboratory of Gerald M. Rubin (University of California,
Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and
Superscript II RT (Life Technologies). Note: this is a
NIH_MGC Library."
99 a 258 c 320 g 239 t 1 others
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/db_xref="taxon:9606"
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Pred. No. 5e-119;
1; Mismatches 32;
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Best Local
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              CTCTGGTGGATGAACTAGAATGGGAAATTGCCCAGGTGGACCCCAAGAAGACCATTCAGA 260
                                                                          CCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGG
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                                                                                                                                                                                AGCGGGAGTCCAGCGGTCTTCCAGCGCTTGGGCCACGGCGGCGCGCCCTGGGAGCAGAGGT 60
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747; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Miklos Palkovits, M.D., Ph.D.
cDNA Library Preparation: Michael J. Brownstein (NHGRI), Sh
Toshiyuki and Piero Carninci (RIKEN)
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incytte Genomics, Inc.
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAM11666 row: 1 column: 01
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence stop: Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Robert Strausberg, Ph.D.
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National Institutes of Health, Mammalian
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BI550436
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/tissue_type="hippocampus"
/lab_host="DH10B"
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/db_xref="taxon:9606"
/clone="IMAGE:5264328"
                                                                                                                                                                                                                                                          88.6%;
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Pred. No. 5.3e-116;
1; Mismatches 19;
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J. Brownstein (NHGRI), Shiraki
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N AGENCOURT_7911956 NIH_MGC_68 H.
5', mRNA sequence.
BQ421069 1 GI:21116384
EST.
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLANd13197 row: d column: 14
High quality sequence stop: 542.
Location/Qualifiers
                                                                                                                                                                                                                             1 (bases 1 to 868)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                                                                                                              Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP/Gazdar
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Mammalla; Eutherla; Primates; Catarrhini; Hominidae;
1. (bases 1 to 868)
                                                                                                                                                                                                                   Contact: Robert Strausberg, Ph.D.
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                                                                                                                                                                                                                                                                                                   sapiens
/organism="Homo sapiens"
/db_xref="taxon:9606"
/dlone="Inba@E609949"
/clone=!iba@E609949"
/clone_liba."NIH_MGC_68"
/tissue_type="large cell carcinoma"
/lab_host="DH10B (phage-resistant)"
/note="Organ: lung; Vector: pCMV-SPORT6;
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ното
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   Site_1:
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MAGE:6009949
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RESULT 4 BQ421827 LOCUS

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880 AGEMCORT_7801623 NIH_MGC_72 5', mRNA sequence. BQ421827

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IMAGE: 6050568

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                                              ACTGGCTTGATGGATCACCCCCAGGAGGGGAAAAT--GGTGGCAATGCCTTTTATATATT
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Average insert size 1.8 kb. Library constructed
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103 c 257 g 168 t 8 others
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Pred. No. 7.6e-116;
1; Mismatches 37;
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                                                                                      CCTTATGCCCGCTCAGAGGCCCACCTCACAGAGCTGCTGGAGGAGATATGTGACCGGATG
                                                                                                                                                                                          GCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAATTGCCCAGGTGGACCCCCAAGAAG
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 AGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGAGGAATACGAGGATGAACTCATT
                          GGCCGTAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCGAATCGACTCAGATATT
                                                                          CCTTATGCCCGCTCAGAGGCCCACCTCACAGAGCTGCTGGAGGAGATATGTGACCGGATG
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EST.
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Tissue Procurement: ATCC/DCTD/DTP
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1 (bases 1 to 880)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /tissue_type="melanotic melanoma"
/lab_host="DH10B (phage-resistant)"
/note="Organ: skin; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: Sall; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 2 kb. Library constructed by Life
Technologies."
108 c 256 g 176 t
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/db_xref="taxon:9606"
/clone="IMAGE:6050568"
/clone_lib="NIH_MGC_72"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.lln1.gov
Plate: LLAM11474 row: j column: 07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium
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National Institutes of Health, Mammalian
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           226
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Location/Qualifiers
/note="Organ: pooled colon, kidney, stomach: Vector: pCMY-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 3 colons, age 26 yo male, 49 yo female, 71 yo male colon; 46 yo male kidney, and pool of stomachs, 62 yo male and 70 yo female. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1.3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen), Research Genetics tracking code 023. Note: this is a NIH_MCC Library."
           a
                                                                                                                                                                                                                                                                                                  /clone="IMAGE:5189862"
/clone_lib="NIH_MGC_116"
                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                    /lab_host="DH10B"
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                                                                   mRNA sequence.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                              GAGAATCCAGTGAACTGGACCTACAAGGCATCCGAATCGACTCAGATATTAGCGGCACCC
                                                            CTCTGGTGGATGAACTAGAATGGGAAATTGCCCAGGTGGACCCCAAGAAGAAGACCATTCAGA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Miklos Palkovits, M.D., Ph.D.

cDNA Library Preparation: Michael J. Brownstein (NHGRI), Sh
Toshiyuki and Piero Carninci (RIKBN)

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can l
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov

Plate: LLAMIL666 row: 1 column: 12
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NIH-MCC http://mgc.nci.nih.gov/.
NAtional Institutes of Health, Mammalian Gene Collection
Unpublished (1999)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /tissue_type="hippocampus"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone="IMAGE: 5264339"
/clone_lib="NIH_MGC_95"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
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96.4%;
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Pred. No. 2.8e-112;
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CTGGGGCCAAAGTGAGAGTCCAGCGGTCTTCCAGCGCTTGGGCCACGGCGGCGGCCCTGG
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Mammalla; Eutheria; Primates; Catarrhini; Hominidae;
1 (bases 1 to 742)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA sequence.
BG824549
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Plate: LLCM1737 row: k column: 13
H1gh quality sequence stop: 740.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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602728454F1 NIH_MGC_15 Homo s
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                                                                                                                    180
                                                    Conservative
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                                                                                                             /note="Organ: colon; Vector: pOTB7; Site_1: XhoI; Site_2: ECORI; CDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript IIRT (Life Technologies)" a 184 c 233 g 144 t 1 others
                                                                                                                                                                                                                                     /tissue_type="adenocarcinoma cell line"
/lab_host="DH10B (phage-resistant)"
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/clone_lib="NIH_MGC_15"
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                                                               83.9%;
98.3%;
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                                                 Score 676.6;
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602014708F1 NCI_CGAP_Brn64 Hc
5', mRNA sequence.
BF3444334
                                                                        Email: cgapbs-r@mail.nih.gov
Tissue Procurement: David N. Louis, M.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
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                                                                                                                       TTGTGACCATGCCCTGCACATATCGCATGATGAGCTATGAACCACTGGAGCAGCCCACAC
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                                                                                                           TTGTGACCATGCCCTGCACATATCGCATGATGAGCTATGAACCACTGGAGCAG-CCACAC
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/db_xref="taxon:9606"
/clone="IMAGE:4150512"
/clone="IMAGE:4150512"
/clone="IMAGE:4150512"
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/lab_host="DH10B (T1 phage-resistant)"
/note="Organ: brain; Vector: pcMv-SpORT6; Site_1: NotI
Site_2: Sali; Cloned unidirectionally. Primer: Oligo d
Average insert size 1.57 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
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Pred. No. 5.4e-109;
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TGCCTTATGCCCGCTCAGAGGCCCACCTCACAGAGCTGCTGGAGGAGATATGTGACCGGA 368
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                    GGCTGGGGCCAAAGTGAAAGTCCAGCGGTCTGCCCAGCGCTTGGGCCACGGCGGCGGCCCT 68
                                                              TGCCTTATGCCCGCTCAGAGGCCCACCTCACAGAGCTGCTGGAGGAGATATGTGACCGGA
l Similarity
743; Conserv
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM11470 row: 1 column: 12
High quality sequence stop: 775.
Location/Qualifiers
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Tissue Procurement: Life Technologies, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Robert Strausberg, Ph.D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NIH-MGC http://mgc.nci.nih.gov/.
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1 (bases 1 to 887)
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/db_xref="taxon:9606"
/clone="InAGE:5188307"
/clone_lib="NIH_MGC_116"
/lab_host="DH10B"
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cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM2461 row: c column: 06
High quality sequence start: 208
High quality sequence stop: 350.
Location/Qualifiers
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5', mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mammalia; Eutheria; Primates; Catarrhini;
1 (bases 1 to 673)
NIH-MCC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
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                          196
           /clone_lib="NMAGE_102"
/clone_lib="NIH_MGC_102"
/clone_lib="NIH_MGC_102"
/tlssue_type="epidermoid carcinoma, cell line"
/lab_host="DH10B (phage-resistant)"
/note="Organ: salivary gland; Vector: pOTB7; Site_1: XhoI;
Site_2: EcoRI; cDNA made by oligo-dT priming.
Site_2: EcoRI; cDNA made by oligo-dT priming.
Site_1: Site_2: GCAI; cDNA made by oligo-dT priming.
Site_2: EcoRI; cDNA made by oligo-dT priming.
Site_2: EcoRI; cDNA made by oligo-dT priming.
Site_2: EcoRI; cDNA made by oligo-dT priming.
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Site_1: XhoI;
Site_2: EcoRI; cDNA made by oligo-dT priming.
Site_1: XhoI;
Site_2: CloredT priming.
Site_1: XhoI;
Site_2: CAI;
Site_2: CAI;
Site_3: Aligo-dT priming.
Site_1: XhoI;
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/db_xref="taxon:9606"
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NIH_MGC_102
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2 Homo
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sapiens
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                                                                                                                                                                                                                                                                                                 TGGAGCAGCCCACACTGGCTTGATGGATCACCCCCCAGGAGGGGAAAATGGTGGCAATGCC
                                                                                                                                                                                                                                                                                                                                                                                                           TAAGCGAACAGATCTTTGTGACCCATGCCCTGCACATATCGCATGATGAGCTATGAACCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGATGAACTCATTGAATTCTTTTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGCAG
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                                                                                                                                              mRNA sequence.
BI909759
BI909759.1 GI:
                       NIH-MGC http://mgc.nci.nih.gov/.
national Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                              BI909759 720 bp mRNA 603070841F1 NIH_MGC_118 Homo sapiens cDI
                                                                     Mammalia; Eutheria;
1 (bases 1 to 720)
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  cgapbs-r@mail.nih.
Procurement: Life
                                                                                                Metazoa;
                                                                                                                                                                                                                                                      673
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99.7%;
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Primates;
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Pred. No. 3.5e
0; Mismatches
Technologies,
                                                                                 Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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3.5e-108;
heg 2;
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                           GAATTCTTTTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGCAGTAAGCGAACAGAT
                                         GAATTCTTTTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGCAGTAAGCGAAAAGAT 610
                                                                                AGCGGCACCCTCAAGTTTGCGTGTGAGAGCATCGTGGAGGAATACGAGGATGAACTCATT
                                                                                                                                                                                                                                                 AGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGAGGAATACGAGGATGAACTCATT
                                                                                                                                      GGCCGGAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCGAATCGACTCAGATATT
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Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM11552 row: a column: 12
High quality sequence stop: 717.
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/db_xref="taxon:9606"
/clone="IMAGE:5219603"
/clone=1ib="NIH_MGC_118"
/tissue_type="leukocyte"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="Westor: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source leukocytes from anonymous pool of non-activated adult donors. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.7 kb, insert size range 1.2-3.3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 027. Note: this is a NIH_MGC Library."
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97.8%;
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GCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAATTGCCCAGGTGGACCCCAAGAAG
                                                                                                                                       GACCAAAGGTGGAGCAACCCCGTTACCCTAAARATGAAAGGCTGGGGTTGGCTGGCCCTG 130
                                                                                                                                                                                                          CTGGGGCCAAAGTGAAAGTCCAGCGGTCTGCCAGCGCTTGGGCCACGGCGGCGCGCCCTGG 70
                                                                                                                                                                                      CTGGGGCCAAAGTGAGAGTCCAGCGGTCTTCCAGCGCTTGGGCCACGGCGGCGGCCCTGG 186
                                                                                                                     CACTGGCTTGATGGATCACCCCCAGGAGGGGAAA 703
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov Tissue Procurement: DCTD/DTP
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National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
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                                                                                                                                                                                                                                                                                                                                              /note="Organ: lung; Vector: pOTBS; Site_1: XhoI; Site_2: ECORI; CDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies)." a 216 c 292 g 176 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="small cell carcinoma"
/cell_line="MGC3"
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/clone="IMAGE:3943223"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone_lib="NIH_MGC_7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
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                                                                                                                                                                                                                                                      mRNA sequence.
BG704443
BG704443.1 GI
                            Contact: Robert Strausberg, Ph.D.

Email: cgapbs remail.nih.gov

Tissue Procurement: Miklos Palkovits, M.D., Ph.D.

CDNA Library Preparation: Michael J. Brownstein (NHGRI), Sh

Toshiyuki and Piero Carninci (RIKEN)

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can

found through the I.M.A.G.E. Consortium/LLNL at:

http://lmage.llnl.gov

Plate: LLAM10727 row: a column: 09
                                                                                                                                                      NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
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602688633F1 NIH_MGC_95 Homo
         High quality sequence stop: 785.
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                    ACTGGCTTGATGGATCACCCCCAGGAGG
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CATGGTTTGATGGATCACCCCAGGAGGG
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/db_xref="taxon:9606"
/clone="IMAGE:4821008"
/clone_lib="NIH_MGC_95"
/tissue_type="hippocampus"
/lab_host="DH10B"
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Pred. No. 4.1e-104;
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  TACGTACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCGA
                                                                                                                     TCAGTGGTGGAGGTGCCTTATGCCCGCTCAGAGGCCCCACCTCACAGAGCTGCTGGAGGAG
                                                                                                                                                                                                                     GTGGACCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCAGATGGCAGCCAG 295
                                                                                                                                                                                                                                                                              GATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAATTGCCCCAG
                                                                                                                                                                                                                                                                                                                                                          GGTTGGCTGGCCTTCTGGGGGCCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAG
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Tissue Procurement: ATCC
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National Institutes of Health, Mammalian
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601898804F1 NIH_MGC_19
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/Clone_IIb="NMH_MGC_19"
/Clone_IIb="NMH_MGC_19"
/Lissue_Type="neuroblastoma"
//Issue_Type="neuroblastoma"
//Iab_host="DHJDB (phage-resistant)"
/Iab_host="DHJDB (phage-resistant)"
/Iab_host="Namade by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5'
adaptor: GGCACCAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."
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/db_xref="taxon:9606"
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95.4%;
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20 row: h column: 02
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No. 7.4e-104;
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BE791763
                                                                                                                                                                                                                                                                                                                                                                         found through the I.M.A.G.E. Consortium/LLNL at: Plate: LLCM779 row: k column: 22 High quality sequence stop: 739.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
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National Institutes of Health, M
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Contact: Robert Strausberg, Ph.D.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Clone distribution: MGC clone distribution information can be

Clone distribution: MGC clone distribution information can be
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                    182
          /lab_host="DHIOB (phage-resistant)"
/lab_host="DHIOB (phage-resistant)"
/lab_host="DHIOB (percent porms) Site_1: XhoI; Site_2:
ECCRI; "CDNA made by oligo-dr priming. Directionally
cloned into EccRIX/NoI sites using the following 5'
adaptor: GGCACGAG(G). Size-selected >500bp for average
insert size 1.8kb. Library constructed by Ling Hong in
the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-CDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies)."
a 180 c 237 g 146 t
                                                                                                                                                                                                                 /clone_lib="NIH_MGC_7"
/tissue_type="small cell carcinoma"
/cell_line="MGC3"
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/db_xref="taxon:9606"
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IMAGE:3936141 5',
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Pred. No. 3.8e-103;
1; Mismatches 16;
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Search completed: March Job time: 1155.74 secs 30, 2003, 20:56:44

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Maximum Match 100%
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-MODEL-frame+_p2n.model -DEV-xl
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Ygapop 10.0 ,
Fgapop 6.0 ,
Delop 6.0 ,
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1: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*

2: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*

3: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*

4: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*
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SUMMARIES

Result

ALIGNMENTS

RESULT 1 AAZ38326

AAZ38326 standard; cDNA; 546 BP.

AAZ38326;

09-FEB-2000 (first entry)

Human transmembrane protein cDNA clone HP10390 coding sequence

HP10390; transmembrane domain; stomach cancer cell; antibody; assay reagent; diagnostic marker; primer; probe; antisense; g agonist; antagonist; ligand; therapeutic; ds. gene therapy;

Homo sapiens

Location/Qualifiers

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                                                                                                                                                                                                                                                                                                                     This sequence represents the coding sequence of human cDNA clone HP10390 which encodes a 20 kD protein with one putative transmembrane domain in the N-terminus. The cDNA was isolated from a human stomach cancer cell line cDNA library. The protein has no homology with any known protein. The protein may be used to raise specific antibodies, as assay reagents, as diagnostic tissue markers, for the isolation of cognate receptors, ligands and binding proteins, and as biologically active agents. Nucleotides encoding the protein may be used as primers and probes or antisense molecules, and in gene therapy. Cells transformed with these nucleotides may be used to screen for agonists and antagonists which are potentially useful therapeutically.
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03-JUL-1997;
03-JUL-1997;
19-MAY-1998;
19-MAY-1998;
17-JUN-1998;
This cDNA clone encodes human secretory peptide-9, or Zsig9, variant (see AAW88474). Zsig9 (see also AAW88469) is overexprehuman brain, liver, lung, oesophageal, stomach, colon, rectal, thyroid and lymphoma tumors. Thus, Zsig can be used as an indicator for cancer. Zsig9 cDNA was discovered in a placenta clone from a full-term pregnancy cDNA library which contained a expressed sequence tag (see AAX06971). The invention provides
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           07-FEB-2000
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US-10-082-502-17

 $(1-182) \times AAZ08293$

(1-806)

Gaps:

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Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                     Alignment
                                                                                                                                    protein-9, zsig9 that arises due to alternative splicing, allelic variation or silent mutations that result in amino acid changes. This sequence is mapped to the human chromosome 12q15 region. It is overexpressed in tumours. Antagonists, antibodies and antisense nucleotides to zsig9 are useful for detecting and treating tumours. The antagonist may be an antibody or receptor to zsig9 and it may be radiolabelled or fused to a polypeptide toxin. It can be used for down regulating the overexpression of zsig9. The gene sequence can be used as nucleic acid probes to detect RNA encoding zsig9. The zsig9 sequence facilitates improved diagnostic and therapeutic techniques for detecting and treating cancers, especially of the brain, liver, stomach, lymphoma, etc., at an early stage.
                                                                     No.:
                                                                                                               Sequence 806
                                                                                                                                                                                                                                                                                                                                Disclosure; Page 33-35; 45pp; English.
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                                                                                                                                                                                                                                                                                                   The present DNA sequence is a gene encoding the variant of the secretory
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164..649
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/note= "Overexpressed in tumours"
104.163
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                            Kato
                                                                 28-APR-1998;
                                                                                               04-NOV-1999
                                                                                                                                                                                 assay reagent; diagnostic marker; primer;
agonist; antagonist; ligand; therapeutic;
                                                                                 27-APR-1999;
                                                                                                              WO9955862-A2.
                                                                                                                                                                    Homo
                                                                                                                                                                                                 HP10390; transmembrane domain; stomach cancer cell;
                                                                                                                                                                                                              Human transmembrane protein cDNA clone HP10390.
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DB; AAY52391.
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                                                                                                                                                                  sapiens
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                                                                                                                                                                                                                                                                                                                                                   ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys 160
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGGCAGCCAGTCAGTGGTGGAGGTGCCTTATGCCCGCTCAGAGGCCCCACCTCACAGAG
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                                           SAGAMI CHEM RES CENT PROTEGENE INC.
                            Kimura T;
                                                                                                                                                                                                                                                            standard; cDNA; 814
                                                                                                                                                                                                                             (first entry)
                                                                  98JP-0119395
                                                                                99WO-JP02226
                                                                                                                                           Location/Qualifiers 145..693
                                                                                                                             /product=
                                                                                                                                      /*tag=
                                                                                                                             "Human transmembrane protein HP10390"
                                                                                                                                                                                 probe; antisense;
ds.
                                                                                                                                                                                                 antibody;
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Claim 4; Page 106-107; 114pp; English.

This sequence represents the human cDNA clone HP10390 which encodes a 20 kD protein with one putative transmembrane domain in the N-terminus. The cDNA was isolated from a human stomach cancer cell line cDNA library. The protein has no homology with any known protein. The protein may be used to raise specific antibodies, as assay reagents, as diagnostic tissue markers, for the isolation of cognate receptors, ligands and binding proteins, and as biologically active agents. Nucleotides encoding the protein may be used as primers and probes or antisense molecules, and in gene therapy. Cells transformed with these nucleotides may be used to screen for agonists and antagonists which are potentially useful therapeutically.

Sequence 814 BP; 210 A; 194 ü 241 ç; 169 T; 0 other;

Percent Similarity: Best Local Similarity:

2.53e-103 960.00 100.00% 100.00% 100.00% 21

Length:
Matches:
Conservative:
Mismatches:
Indels:

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Gaps:

Alignment

Scores:

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Query Match:

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181 685	161 625	141 565	121 505	101 445	81 385	61 325	41 265	21 205	1 145	082
GluLeu 182 	ASPLySLeuCySSerLySArgThrAspLeuCySASpHisAlaLeuHisIleSerHisAsp 180	ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys 160 	GlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIle 140 	HisargLysAsnTyrValargValValGlyargAsnGlyGluSerSerGluLeuAspLeu 120 	LeuLeuGluGluIleCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThr 100 	AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu 80 	GluIleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro 60 	ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp 40	MetLysGlyTrpGlyTrpLeuAlaLeuLeuLeuGlyAlaLeuLeuGlyThrAlaTrpAla 20 	US-10-082-502-17 (1-182) x AAZ38327 (1-814)

RESULT 5
ABK52765
ID ABK5

ABK52765 standard;

CDNA;

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ВP

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Score:
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                                            Alignment Scores:
                                                                                               The invention relates to modulators of a cancer-related genes. Also described are: (1) processes for identifying an anti-neoplastic agents comprising contacting a cell exhibiting neoplastic activity with a compound first identified as a cancer related gene modulator, and detecting a decrease in the neoplastic activity. (2) a process for determining the cancerous state of a cell by determining an increase in the level of expression of at least one gene, where an elevated expression relative to a known non-cancerous cell indicates a cancerous state or potentially cancerous state. The anti-neoplastic agent is useful for treating cancer or for protecting an animal against cancer. The immunogenic composition is also useful for treating cancer in an animal, where the composition elicits the production of cytotoxic T lymphocytes specific for the immunogenic composition. Preferably, the animal is a human. The cancer-linked genes and polypeptides are also useful as targets for cancer therapy or chemotherapy. The present expunses and cancer-linked gene located on chromosome 12, which encodes transmembrane protein 4.
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12-OCT-2000;
12-OCT-2000;
12-OCT-2000;
16-OCT-2000;
19-OCT-2000;
19-OCT-2000;
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P-PSDB;
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                                                                         Sequence 814
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DB; AAU97063.
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2000US-239802P.
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24-JUL-2000;
24-AUG-2000;
                                           24-JUL-2001; 2001WO-JP06371
                                                                                                     WO200208416-A1
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2000JP-0254407
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Indels:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          method comprises inoculating an animal with a vector expressing a fusion protein having an antigen protein fused to the C-terminal side (extracellular) of a transmembrane domain protein (the N-terminal side of which is intracellular), and then isolating and purifying the antibody from the animal. The antibodies can be used as drugs, vaccines, diagnostic reagents and laboratory reagents. The present sequence encodes a polypeptide, designated Hp10390, which was used in the course of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kato
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antibody preparation by inoculation of an animal with a vector expressing a fusion protein of an antigen on the C-terminal side transmembrane domain for use as drugs, diagnostic reagents and
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                                                                                                                  CATCGCAAGAACTACGTACGTGGGGCCGGGAATGGAGAATCCAGTGAACTGGACCTA
                                                                                                                                                                                                         AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu
                                      GTGGAGGAATACGAGGATGAACTCATTGAATTCTTTTCCCGAGAGGCTGACAATGTTAAA
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Best Local S Query Match: DB:

US-10-082-502-17

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13-JUN-2000;
21-JUN-2000;
03-AUG-2000;
01-MAR-2001;
                     and for treating ovarian cancer in a patient. An antigen presenting cell that expresses the sequences is useful for treating ovarian cancer by incubating CD4+ and/or CD8+ T cells isolated from a patient. The T cells can then be proliferated and administered to the patient to inhibit the development of cancer. The DNA sequences are useful as probes or primers for nucleic acid hybridisation, to direct expression of a polypeptide in appropriate host cells. Detecting the presence of a cancer in a patient involves obtaining a biological sample from the patient, contacting the biological sample with an agent that binds to the protein, detecting the amount of protein that binds to the agent, comparing the amount of cancer. Sequences ABK09464-ABK09802 represent PCR primers and CDNA molecules encoding ovarian tumour proteins of the invention.
                                                                                                                                                                             polypeptide comprising a portion of an ovarian tumour protein. The sequences of the invention are useful for stimulating an immune reand for treating ovarian cancer in a patient an immune result.
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Algate
Sequence
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2000US-272790P.
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Mannion J,
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                              12-SEP-1997;
01-JUL-1997;
01-JUL-1997;
12-SEP-1997;
                                                                                                                                                                          Human; secreted protein; gene therapy; protein therapy; tissue; cancer; tumour; neurodegenerative disorder; leukaemia; autoimmune disease; AIDS; developmental abnormality; foetal deficiency; Alzheimer's disease; cognitive disorder; schizophrenia; immunological disorder; mood disorder immune deficiency disease; respiratory disorder; arthritis; skeletal; haematopoietic disorder; neural; osteoporosis; metabolic disorders;
                                                                                    30-JUN-1998;
          (HUMA-) HUMAN
                                                                                                          14-JAN-1999
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                                                                                                                                                   Homo sapiens
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97US-0058598.
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CC The invention relates to nucleic acid sequences (AAX22111 to AAX22134) CC encoding human secreted proteins (AAY01155 to AAY01159). The secreted CC protein gene sequences are deposited with the ATCC under deposit number CC ATCC 209118. Host cells comprising recombinant vectors containing the CC arcial sequences are used for the recombinant production of the CC secreted proteins. The polynucleotide and amino acid sequences are useful CC conditions e.g. by protein or gene therapy. Pathological conditions can be also diagnosed by determining the amount of the new polypeptides in a CC polynucleotides. Specific uses are described for each of the polynucleotides, based on which tissues they are most highly expressed CC in, and include developing products for the diagnosis or treatment of CC cancer, tumours, developmental abnormalities and foetal deficiencies, autoimune diseases, lymphomas, Alzheimer's and cognitive disorders, cancer, fumours, developmental abnormalities and foetal deficiencies, cancer, tumours, developmental abnormalities and foetal deficiencies, CC schizophrenia, immunological disorders, immune deficiency diseases. CC (AIDS), mood disorders, respiratory disorders, arthritis, asthma, CC osteoporosis, metabolic disorders, cardiovascular disorders, endocrine contentifying their binding partners. The polypeptides are also useful gene encoding a human secreted protein (see descriptor line for gene and clone identification).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated human genes and the secreted polypeptides they encode useful for diagnosis and treatment of e.g. cancers, neurological disorders, immune diseases, immune deficiency diseases or blood disorders
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Sequence 1180 BP; 258 A; 304 C; 363 Ģ; 250 Ŧ; ر.

Pred. No.: 4.16e-103 Score: 960.00 Percent Similarity: 100.00% Best Local Similarity: 100.00% Query Match: 100.00% DB: 20 US-10-082-502-17 (1-182) x AAX22112 (1	Length: Matches: Conservative: Mismatches: Indels: Gaps:	1180 182 0 0 0
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P-PSDB; AAU12258

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                                                                                                  18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
20-MAR-2000;
21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
               Gerritsen
Smith V,
                                                                                                                                                                                                                                                                       01-DEC-1999;
01-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                      Human secretory and transmembrane; PRO; mammalian; cancer; lung; breast; prostate; cervical; tumour necrosis factor-alpha; TNF-alpha; cartilage; ear; proliferation; glucose; free fatty acid; skeletal muscle; adipocyte; A-peptide; factor VIIA; gene therapy; ss.
                                                                                                                                                                                                                                                                                                        01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1053
WPI; 2001-408281/43
                                                                                                                                                                                              06-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                 Human cDNA sequence encoding
                                                                                                                                                                                                                                                                                                                                          WO200140466-A2
                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                  24-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAS21330 standard; cDNA; 1210 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GluLeu 182
                                                  _
                                                  GENENTECH INC
                Stewart
                        Beresini M,
ME, Goddard
                                                                 99WO-US31243
2000WO-US31243
2000WO-US00277
2000WO-US00376
2000WO-US03565
2000WO-US04414
2000WO-US04414
2000WO-US054914
2000WO-US05601
2000WO-US05601
2000WO-US07377
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99WO-US28551.
99WO-US28564.
99WO-US28565.
                                                                                                                                                                                                                      99WO-US30095.
99WO-US30911.
99WO-US30999.
                 Tumas
              Deforge L, Desnoyers L, F
\, Godowski PJ, Gurney AL,
!umas D, Watanabe CK, Wood
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               Wood WI,
                        Filvaroff E, (
                Zhang Z;
                                 Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1052
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polypeptide expression in a cell sample to that in a control sample.

Some of the 275 sequences are also useful to stimulate the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, the proliferation or differentiation of chondrocytes, the proliferation or gene expression in pericyte cells, the release of proteoglycans from cartilage, the proliferation of inner ear utricular supporting cells or of T-lymphocytes, the release of a cytokine from peripheral blood monocytes (PBMCs), or the proliferation of endothelial cells. Some of the PRO polypeptides may modulate glucose or free fatty acid uptake by skeletal muscle cells or by adipocytes; or inhibit binding of A-peptide to factor VIIA. The PRO polypeptides can be used in assays to identify molecules involved in binding interactions. The polynucleotides encoding PRO polypeptides can be used to generate probes, antisense RNA/DNA, transgenic or knock out animals and can be used in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isolated, secretory and transmembrane PRO polypeptide used to detect other PRO polypeptides, link bioactive molecules to cells expressing PRO polypeptides, and detect the presence of mammalian tumours e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                            PRO
PRO
PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim
                                                                                                                                                                                                                                                                                                                                                                                                                 breast,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAS21244-AAS21518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lung, breast, prostate, cervical
                                                                                                                                                                                                                                                                                                                                                                                                         21244-AAS21518 encode for novel human secretory and transmembrane polypeptides. The PRO polypeptides are useful to detect other polypeptides, to link bloactive molecules to cells expressing polypeptides, to modulate biological activities of cells expressing polypeptides, and to detect the presence of mammalian lung, colon, ast, prostate, rectal, cervical or liver tumours by comparing PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3; Fig 173;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 813pp; English.
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Percent Similarity: Best Local Similarity: Alignment Scores: Pred. No.: 4.31e-103 960.00 100.00% 100.00% 100.00% 22 Conservative: Mismatches: Indels: Length: Matches: 1210 182 0 0

Sequence 1210

BP;

261 A;

316 C;

379

<u>ი</u>

254 T; 0

other;

US-10-082-502-17 (1-182) x AAS21330 (1-1210)

Gaps:

Query Match:

1022	GTGGAGGAATACGAGGATGAACTCATTGAATTCTTTTCCCGAGAGGCTGACAATGTTAAA	963	۵
160	ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys	141	Y
962	CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT	903	Ъ
140	GlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIle	121	¥
902	CATCGCAAGAACTACGTACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTA	843	ъ
120	HisargLysasnTyrValargValValGlyargAsnGlyGluSerSerGluLeuAspLeu	101	Y
842	CTGCTGGAGGAGATATGTGACCGGATGAAGGAGTATGGGGAACAGATTGATCCTTCCACC	783	ō
100	LeuLeuGluGluIleCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThr	81	¥
782	GATGGCAGCCAGTCAGTGGTGGAGGTGCCTTATGCCCGCTCAGAGGCCCACCTCACAGAG	723	ō
08	AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu	61	¥
722	GAAATTGCCCAGGTGGACCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCA	663	Ö
60	GluIleAlaGlnValAspProLysThrIleGlnMetGlySerPheArgIleAsnPro	41	¥
662	CGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGCTCTGGTGGATGAACTAGAATGG	603	Ď
40	ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp	21	Y
602	ATGAAAGGCTGGGTTGGCTGGCTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCT	543	δ
20	- p	ب	4

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XX AX
AC AAX
XX 23-
DT 23-
XX SEC
KW 61a
OS HOM
XX WO9
PN WO9
XX I3-
PR 13-
PR 117-
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diagnostic, roic
also include d
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13-NOV-1997;
17-DEC-1997;
09-FEB-1998;
13-APR-1998;
                                                                                                                                                                                                                                                             AAX97813-X97906 represent extended cDNA's which encode novel human secreted proteins (see AAY36129-Y36222) and which have cytostatic, thrombotic and osteopathic activity. The extended cDNAs can be used to express secreted proteins or parts of them or to obtain antibodies capable of binding to the secreted proteins. They may also be used in diagnostic, forensic, gene therapy and chromosome mapping procedures. Uses also include design of expression vectors and secretion vectors.
                                                                                                                                                                                               No.:
                                                                                                                                                                                                                                         Sequence 714
                                                                                                                                                                                                                                                                                                                                                                                        Claim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-NOV-1998;
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ArgArgSerGlnAspLeuH1sCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
                                           MetLysGlyTrpGlyTrpLeuAlaLeuLeuClyAlaLeuLeuGlyThrAlaTrpAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1999-347472/29.
                             ATGAAAGGCTGGGGTTGGCTGGGCCCTGCTTCTGGGGGCCCCTGCGGGAACCGCCTGGGCT
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                                                                                                                                                                                                                                                                                                                                                                                       1; Page 272;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY36200.
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97US-0066677.
97US-0069957.
98US-0074121.
98US-0081563.
98US-0096116.
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953.00
99.45%
99.45%
99.27%
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dumas Milne
                                                                                        (1-714)
                                                                                                                                                                                                                                         202
                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                 proteins
                                                                                                                                                                                                                                       G; 151 T;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Edwards
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                                                                                                                   714
181
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                                         RESULT 11
AAX06970
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                                     17-JUN-1998;
03-JUL-1997;
03-JUL-1997;
19-MAY-1998;
19-MAY-1998;
17-JUN-1998;
                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                  Mus
          (ZYMO ) ZYMOGENETICS
                                                                                                                                            02-JUL-1998;
                                                                                                                                                                        14-JAN-1999.
                                                                                                                                                                                                                                               mat_peptide
                                                                                                                                                                                                                                                                           sig_peptide
                                                                                                                                                                                                  WO9901554-A1
                                                                                                                                                                                                                                                                                                                                                                               cancer;
                                                                                                                                                                                                                                                                                                                                                                                               Secretory
                                                                                                                                                                                                                                                                                                                                                                                                                      Mouse secretory peptide-9 (Zsig9) orthologue cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-MAY-1999
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                                                                                                                                                                                                                                                                                                                                                                               therapy;
                                                                                                                                                                                                                                                                                                                                                                            peptide-9; Zsig9;
herapy; diagnosis;
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                                   98US-0099005.
97US-0051704.
97US-0888088.
98US-0081338.
98US-0085983.
98US-0089899.
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358.417
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418..903
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358..906
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growth enhancer;

mouse; 88 tumour

marker;

ВP

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This cDNA clone encodes novel mouse secretory peptide-9, or Zsig9 CC (see AAWB8476), an orthologue of novel human Zsig9 (see AAWB8469). CC Human Zsig9 is overexpressed in a number of tumours including CC brain, liver, lung, oesophageal, stomach, colon, rectal, thyroid CC and lymphoma tumors, and thus can be used as an indicator for CC cancer. The invention provides polynucleotides (see AAX06968-70) cc encoding Zsig9 polypeptides (see AAWB8469-77) including mature polypeptides, other processed forms, variants and the mouse courthologues. The Zsig9 gene, or probbes derived from it, can be cused to determine if Zsig9 is present on chromosome 10, and if a mutation has occurred. Antibodies raised against Zsig9 can be cused as diagnostic agents to determine the presence of Zsig9, and thus the presence of cancer. They can also be labelled with cradioisotopes or fused with toxins and used to treat tumours which overexpress Zsig9. Antisense nucleotides derived from Zsig9 cound con also be used to enhance the growth or development of the proteins can be used to enhance the growth or development of the CC placenta, heart or liver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1069
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P-PSDB; AAW88476.
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GluIleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
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                                                                                                                                                                                                              GATGGCAGCCAGTCAGTTGTGGAGGTACCTTATGCCCGCTCAGAGGCCCCACCTCACAGAG
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                                                     The present DNA sequence is an ortholog encoding the secretory protein-9, zsig9 derived from mouse. It is overexpressed in tumours. Antagonists, antibodies and antisense nucleotides to Zsig9 are useful for detecting and treating tumours. The antagonist may be an antibody or receptor to Zsig9 and it may be radio-labelled or fused to a polypeptide toxin. It can be used for down regulating the overexpression of Zsig9. The gene sequence can be used as nucleic acid probes to detect RNA encoding Zsig9. The Zsig9 sequence facilitates improved diagnostic and therapeutic techniques for detecting and treating cancers, especially of the brain, liver, stomach, lymphoma etc., at an early stage.
                                 Sequence 1069
                                                                                                                                                                                         Disclosure; Page 37-38; 45pp; English.
                                                                                                                                                                                                                 Detecting tumors using antibodies, antagonists and nucleotides to secretory protein-9 (Zsig9) -
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/product= "Mouse Zsig9 secretory
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                                                                                                                                                                                                                         Human secreted protein; hyperproliferative disorder; autoimmune disorder; immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; allergic condition; neurodegenerative disorder; liver fibrosis; coagulation disorder; gene therapy; antimicrobial; tumour; cancer; hepatotropic; immunosuppressive; antirheumatic; gene; ss.
  06-APR-2000; 2000US-195605P
                                             29-MAR-2001; 2001WO-US10232.
                                                                                             18-OCT-2001.
                                                                                                                                        WO200177289-A2
                                                                                                                                                                                                                                                                                                                                                                    cDNA sequence
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(GEMY) GENETICS INST

Merberg D, Clark HF, WPI; 2002-179322/23. Jacobs K, 'n McCoy JM, , Treacy M, Fechtel K, × × Lavallie ER, Collins-Racie LA, Evans C; Agostino MJ, Bowman MR, Spaulding V, Wong Howes SH, Resnick RJ, Gulukota K, Graham Spaulding V, Wong GG;

Six hundred and twenty three polynucleotides derived from a variety of human tissue sources which encode secreted proteins, useful for treating immune deficiencies and disorders such as autoimmune disorder disorders

Claim 1; Page 297; 393pp; English.

XXCCCCCCCCCCCCCCCCCXXXXIIII

The present invention relates to the isolation of novel cDNA sequences which encode human secreted proteins. The cDNA sequences have been derived from a variety of human tissues. The invention also provides a method for producing proteins from these polynucleotide sequences. The proteins are useful for identifying compounds that modulate their activity and production. The sequences of the invention are useful for treating diseases such as hyperproliferative disorders cuseful for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. multiple sclerosis), blood disorders (e.g. theatitis), infectious disorders (e.g. hepatitis), cusefus (e.g. arthritis), infectious disorders (e.g. hepatitis), callergic conditions (e.g. asthma), neurodegenerative disorders (e.g. Alzheimer's disease), liver fibrosis, coagulation disorders (e.g. antendors disorders (e.g. antendors disorders (e.g. antendors disorders (e.g. allergic conditions (e.g. asthma), neurodegenerative disorders (e.g. callergic conditions (e.g. asthma), neurodegenerative disorders (e.g. allergic conditions (e.g. asthma), neurodegenerative disorders (e.g. the allergic conditions (e.g. asthma), neurodegenerative disorders (e.g. the allergic conditions (e.g. asthma), neurodegenerative disorders (e.g. the allergic conditions (e.g. asthma), ne secreted proteins.

Sequence 657 BP; 177 **A** 149 Ç 185 <u>ი</u> 146 Ŧ; 0 other;

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DB:	Query Match:	Best Local Similarity:	Percent Similarity:	Score:	Pred. No.:	***************************************
24	95.21%	97.75%	98.88%	914.00	4.86e-98	
Gaps:	Indels:	Mismatches:	Conservative:	Matches:	Length:	
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US-10-082-502-17 (1-182) × ABK36007 (1-657)

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•	Qy	5 GlyTrpLeuAlaLeuLeuGlyAlaLeuLeuGlyThrAlaTrpAlaArgArgSerGln 24
	Дb	1 GGTTGGCTGGCTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCTCGGAGCAGCCAG 60
	Qy	25 AspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAlaGln 44
	DЬ	61 GATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAATTGCCCAC 120
	Qy	45 ValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnProAspGlySerGln 64
	Db	121 GTGGACCCCAAGAAGACCATGCAGATGGGATCTTTCCGGATCAATCCAGATTGCAGCCAG 180
	Qy	65 SerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGlu 84
	В	181 TCAGTGGTGGAGGTGCCCTATGCCCGCTCAGAGGCCCACATCACAGAGCTGCTGGAGGAG 240
	Qy	85 IleCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsn 104
	망	241 ATATGTGACCGGATGAAGGAGTATGGGGAACAGATTGATCCTTCCACCCATCGCAAGAAC 300
	Qy	105 TyrValArgValValGlyArgAsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArg 124
	Db	301 TACGTACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCGA 360
	Qy	125 IleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIleValGluGluTyr 144
	ర్థ	361 ATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGTGGAGGAATAC 420

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RESULT 14
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13-NOV-1997;
17-DEC-1997;
09-FEB-1998;
13-APR-1998;
10-AUG-1998;
                                                                                                                                                                                        Local Similarity: y Match:
                                                                                                                                                                                                                                                                                                                                                                   AAX97813-X97906 represent extended cDNA's which encode novel human secreted proteins (see AAY36129-Y36222) and which have cytostatic, thrombotic and osteopathic activity. The extended cDNAs can be used to express secreted proteins or parts of them or to obtain antibodies capable of binding to the secreted proteins. They may also be used in diagnostic, forensic, gene therapy and chromosome mapping procedures. Uses also include design of expression vectors and secretion vectors.
                                                                                                                                                                                                                                                                                                                                   Sequence
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                                                           MetLysGlyTrpGlyTrpLeuAlaLeuLeuGlyAlaLeuLeuGlyThrAlaTrpAla
ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGlu-LeuGluTr
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                                                                                                                                                                                                      immunomodulatory; haematopoietic; chemokinetic; analgesic; haemostatic; thrombolytic; antiinflammatory; cytostatic; antibacterial; antiiungal; antiviral; antiidabetic; antiasthmatic; vulnerary; antiparkinsonian; antiulcer; osteopathic; neuroprotective; nootropic; antiparkinsonian; cerebroprotective; anticonvulsant; antidepressant; gene therapy; vaccine; autoimmune disorder; multiple sclerosts; allergic condition; insulin dependent diabetes; asthma; myeloid cell deficiency; ulcer; lymphoid cell deficiency; burn; osteoprosis; osteoarthritis; central nervous system disorder; Alzheimer's disease; stroke; Parkinson's disease; Huntington's disease; coagulation disorder; haemophilia; thrombosis; inflammatory disorder; Crohn's disease;
                                                                                                              20-APR-2000
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                                                                                                                                                                                                 depression;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              requence rays (SESTS), 13018160 from human, mouse, chicken and rat tissue sources. The SESTs can have a range of activities depending on the tissues they were isolated from The activities include:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 228-229; 803pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isolated polynucleotides, and encoded proteins, comprising secreted expressed sequence tags (sESTs), useful for treating various disorders such as autoimmune, infectious, and central nervous system disorders -
                                                                                                                                                                                                                                                                                                                                          104
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                                                                                      rH1sArgLysAsnTyrValArgValValGlyArgAsnGlyGluSerSerGluLeuAspLe 120
                                                                                                                                 GTTGCTTGAGGAGGTGTGTGACCGAATGAAGGAGTACGGGAA-CAGATTGA-CCTTCTAC
                                                                                                                                                 uLeuLeuGluGluIleCysAspArgMetLysGluTyrGlyGluGlnTleAspProSerTh 100
                                                                                                                                                                                                                                                              TCGAAGGAGCCAANATCTACACTGTGGANCTTGCAGGGCTCTGGTGGATGAATTAGAGTG
                                                                                                                                                                                                                                                                                 pGluIleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        to AAA45925 represent specifically claimed secreted expressed tags (sESTs), isolated from human, mouse, chicken and rat
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Search completed: March 30, 2003, 22:42:53 Job time: 145.849 secs

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-Q-/cgn2_1/USPTO_spool/US10082502/runat_24032003_135100_6616/app_query.fasta_1.1308
-DB-Issued_Patents_NA -QFMT-fastap -SUFFIX-ru1 -MINNATCH-0.1 -LOOPCL-0
-LOOPEXT-0 -UNITS-bits -START-1 -END-1 -MATRIX-blosum62 -TRANS-human40.cd1
-LIST-45 -DOCALIGN-200 -THR_SCORE-pot -THR_MAX-100 -THR_MIN-0 -ALIGN-15
-MODE-LOCAL -OUTEM-Dto -NORM-ext -HEAPSIZE-500 -MINLEN-0 -MAXIEN-200000000
-USER-US10082502_@CGN_1_1_131_@runat_24033003_135100_6616 -NCPU-6 -CPU-3
-NO_MMAP -LARGEQUERY -NEG_SCORES-0 -WAIT -LONGLOG -DEV_TIMEOUT-120
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/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
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US-09-163-285-3
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Patent No. 6204013
GENERAL INFORMATION:
APPLICANT: Khodadoust, Mehran
TITLE OF INVENTION: NOVEL MSP-5
TITLE OF INVENTION: AND USES TH
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        NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: MNI-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEPAX: (617)72-4214
TMODELETAX: (617)72-4214
                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/0
FILING DATE: June 24, 19
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
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CITY: Boston
STATE: Massac
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28 State Street
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VENTION: NOVEL MSP-5 PROTEIN AND NUCLEIC ACID MOLECULES
VENTION: AND USES THEREOF
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US-08-993-380-3
US-08-938-105-2
US-09-131-8318-2
US-09-1809-9990-1
US-09-322-360-1
US-09-322-360-2
US-09-069-637-2
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US-09-102-433-1
US-09-102-433-1
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US-09-110-19-25
US-08-485-3558-47
US-08-485-3558-49
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US-08-8849-017-24
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Boston

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Sequence 1, Application US/09163285;
Patent No. 6204013
GENERAL INFORMATION:
APPLICANT: Khodadoust, Mehran
TITLE OF INVENTION: NOVEL MSP-5 P
TITLE OF INVENTION: AND USES THER
UMBER OF SEQUENCES: 4
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Best Local Similarity:
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STRANDEDNESS: Single
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                ADDRESSEE:
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; LOCATION:
US-09-163-285-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-082-502-17 (1-182) x US-09-163-285-1 (1-1512)
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Best Local Similarity:
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INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1512 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/090,398
FILLING DATE: JUNE 24, 1998
ATTORNEY/AGENT INFORMATION:
NAME: MANDERS JOTEMATION:
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: MNI-049
TELECOMMUNICATION INFORMATION:
TELECHNOE: (617)727-7400
TELECAX: (617)712-4214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
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 467
                                                                                                                                                 371
                                                                                                                                                                                                                                                                                                                                                                                                                                       320 CAGGTGCTG-----GATACAGGCAAGAGGAAGAGACACGTGCCTTACAGCGTTTCA 370
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 LeuAlaLeuLeuGlyAlaLeuLeuGlyThr-----AlaTrpAla------Arg 21
 GGTCAGAGTCAGACCATGGCAACACTGAAAAGGCCTAGTGCAGAAGGGGGGTGAAGGTGGAT
                                  GlyGluSerSerGlu------LeuAspLeuGlnGlyIleArgIleAsp 126
                                                                                                      GlnIleAspProSerThrHis-----ArgLysAsnTyrValArgValValGlyArgAsn 112
                                                                                                                                             GAGACAAGGCTGGAAGAGGCCTTAGAGAGAATTTATGTGAGCGGATCCTGGACTAT----- 424
                                                                                                                                                                        GluAlaHisLeuThrGluLeuLeuGluGluIleCysAspArgMetLysGluTyrGlyGlu 94
                                                                                                                                                                                                                                                                                                                                                                 GAGGAGGACGATGACACAGAACGCTTGCCCAGCAAATGCGAAGTGTGTAAGCTGCTGAGC 259
                                                                                                                                                                                                                                          SerPheArgIleAsnProAspGlySerGlnSerValValGluValProTyrAlaArgSer 74
                                                                                                                                                                                                                                                                                                                             AspGluLeuGluTrpGluIleAlaGlnValAsp---ProLysLysThrIleGlnMetGly 54
                                                                                                                                                                                                                                                                                                                                                                                                   ArgSerGlnAsp------LeuHisCysGlyAlaCysArgAlaLeuVal 35
                                                                                                                                                                                                                                                                                           ACAGAGCTACAGGCGGAACTGAGTCGCACCGGTCGATCTCGAGAGGTGCTGGAGCTGGGG 319
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Matches:
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DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: DNA
; ORGANISM: Mouse
US-09-724-864-14
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US-09-724-864-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/724,864
CURRENT FILING DATE: 2000-11-28
PRIOR APPLICATION NUMBER: U.S. NO. 6380362 60/171,678
PRIOR FILING DATE: 1999-12-23
NUMBER OF SEQ ID NOS: 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Murison, James G.
TITLE OF INVENTION: Polynucleotides, polypeptides expressed
TITLE OF INVENTION: by the polynucleotides and methods for their use.
FILE REFERENCE: 11000.105001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE:
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                                                                                                                                                                                                                                                                                                                     26 LeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAlaGlnVal
                                                                                                                                                                                                                                                                                                                                                        98 TCGGCTTCGGCTCCCACACTGGATGATGAAGAGAAGTACTCGGCTCATATGCCGGCTCAC
                                                                                                                                                                                                                                                                                                                                                                                               24 ----
                                                                                                                                                                                                                                                                                                                                                                                                                                            7 LeuAlaLeuLeuGly-----AlaLeuLeuGlyThrAlaTrpAlaArgArgSer---
   IleAspSerAspIleSerGly--
                             CAGATGAAGCGTCTCACGGGCCCAGGACTTAGCAAGGGGGCCAGAG------CCAAGA 391
                                                           TyrValArgValValGlyArgAsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArg 124
                                                                                                                       CysAspArg---MetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsn 104
                                                                                                                                                                                       ValValGluValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluIle
                                                                                                                                                                                                                            GAGGCTAAATCTCAC-----
                                                                                                                                                                                                                                                      AspProLysLysThrIleGlnMetGlySerPheArgIleAsnProAspGlySerGlnSer
                                                                                                                                                                                                                                                                                       CTGCGCTGCGATGCCTGCCGGGCTGTGGCCTTCCAGATGGGGCAACGTCTGGCGAAAGCA
                                                                                                   TGCTCTCAGAACTGGCAGTCCTATGGA-----
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Matches:
----ThrLeuLysPheAlaCysGluSer 139
                                                                                                                                                                                                                         ------ACTCCAGACGCCAGT---GGA 250
                                                                                                                                                                                                                                                                                                                                                                                        -----GlnAsp
                                                                                              -----GTTCATGAAGTGAAC 340
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Percent Similarity:
Best Local Similarity:
Query Match:
US-10-082-502-17 (1-182) x US-09-453-702B-62 (1-61663)
                                                                                                                                                                               ; MOLECULE TYPE: DNA (genomic); SEQUENCE DESCRIPTION: SEQ ID US-09-453-702B-62
                                                                                                                                            Alignment Scores:
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                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 62: SEQUENCE CHARACTERISTICS: LENGTH: 61663
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                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: (608) 251-5000
                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/110,955
FILING DATE: 04-DEC-1998
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 53701-2113
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.50 inch.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Quarles & Brady
STREET: 1 South Pinckney S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
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TITLE OF INVENTION: No. 6365723el Sequences of
NUMBER OF SEQUENCES: 265
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                                                                                                                                                                                                                                                TYPE: nucleic acid
STRANDEDNESS: 'double
                                                                                                                                                                                                                                                                                                                                                                                    NAME: Seay, Nicholas J.
REGISTRATION NUMBER: 27386
REFERENCE/DOCKET NUMBER: 960296.95017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/09/453,702B FILING DATE: 03-Dec-1999 CLASSIFICATION: <Unknown>
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STATE: WI
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Matches:
Conservative:
Mismatches:
Indels:
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US-08-257-073-10

: Sequence 10, Application US/08257073

: Patent No. 5766597
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Paoletti, Enzo
APPLICANT: de Taisne, Charles
APPLICANT: Tine, John A.
TITLE OF INVENTION: MALARIA RECOMBINANT POXVIRUS VACCINE
NUMBER OF SEQUENCES: 143
                                                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 01
FILING DATE: 11-JUN-1993
                           ATTORNEY/AGENT INFORMATION:
                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  153 rArgGluAlaAspAsnValLysAspLysLeuCysSerLysArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  114
                                                                                                        APPLICATION NUMBER: FILING DATE: 18-MAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94
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                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/257,073 FILING DATE: 09-JUN-1994
                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             uSerSerGluLeuAspLeuGlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACGATGGATCCGGGGGAGTATGCGGTTTCG---GTGACGGTGAAAGGGGAAGACTGCTGT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGTGCATTGTATGCCCCGTAAAAAAGTGTTTAACGGAGGTGGAGTGTGAGTGTTGTTGT 37978
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGTGGATAT-----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                        10036
                                                                                                                                                                                                                                                                                                                                                                                                                                                            New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E: Curtis, Morris & Safford, P.C. 530 Fifth Avenue, 25th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                         UNITED STATES OF AMERICA
                                                                                                                                                                                                                                                                                                               PatentIn Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -CGCAGTCTTGTTGAGGTTAGCATACCCGGAGAACTGCTGACAGATTTCCG
                                                                                                    IUMBER: US 07/852,305
18-MAR-1992
                                                 20-MAR-1991
                                                                  US 07/672,183
                                                                                                                                                                                     us 08/075,783
                                                                                                                                                                                                                                                                                                                   #1.30
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US-08-961-083-159
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US-08-257-073-10
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                                                                                                                                                                                                                            Sequence 159, Application US/08961083 Patent No. 6159469
GENERAL INFORMATION:
APPLICANT: Choi et. al.
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TELEX: 425066 CURTMS
INFORMATION FOR SEQ ID NO:
    COMPUTER
MEDIUM
                                                                                                                                                                                                                                                                                                                                                                         1597 TTTAATAATAATTTTGACAAAGATGTCGTAGATAAAATATTCAGTGCAAGA 1647
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LENGTH: 5181 base pairs
TYPE: nucleic acid
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 840-3333
                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1492
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1312 GTATATCCTTTACCACTCACTGATATTCATAATTCATTAGCTGCAGATAATGATAAAAAAT 1371
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                123 IleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIleValGlu 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               111 ArgAsnGlyGlu-----
                                                                                 STATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             36
                                        ZIP: 20850
                                                         COUNTRY:
                                                                                                    CITY: Rockville
                                                                                                                            STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 AlaHis-----LeuThrGluLeuLeuGluGluIleCys-----AspArgMetLys 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            56 PheArgIleAsnProAspGlySerGlnSerValValGluValProTyrAlaArgSerGlu 75
                                                                                                                                          ADDRESSEE:
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READABLE FORM:
TYPE: Diskette,
                                                                                   Maryland
                                                                                                                       E: Human Genome Sciences,
9410 Key West Avenue
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----AspGluLeuIleGlu---PhePheSerArgGlu 155
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                                                                                                                                                                                                                                                                                                                                                                                                -ValLysAspLysLeuCysSerLysArg 167
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Matches:
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Indels:
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COMMUTER: HP Vectra 486/33
OPERATING SYSTEM: MSDOS vei

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Best Local Similarity:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (301) 309-8512
INFORMATION FOR SEQ ID NO: 159:
SEQUENCE CHARACTERISTICS:
        941
                                       160
                                                                                                       146
                                                                                                                                   851 CAAAATAAAGTTGCTGATTTA-
                                                                                                                                                                                            791 CAGGATGAATTAGATAAAGAAGCAGAAGAAGCTGAGTTGGATAAAAAAGCTGATGAACTT 850
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APPLICATION NUMBER:
                                                                                                                                                                                                                         106 ValArgValValGlyArgAsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArgIle 125
                                                                                                                                                                                                                                                                                                                          671 GTTATAGAAGCTAAATTAAAAAAGGAGAAGCTGAGCTAAACGCTAAACAAGCTGAGTTA 730
                                                                                                                                                                                                                                                                                                                                                                                      560 AAACTTCAATATGAAATTTCTACTTTGGAACAAGAAGTTGCTACTGCTCAACATCAAGTA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA: APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                         86 CysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyr 105
                                                                                                                                                                                                                                                                                                                                                         66 ValValGluValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluIle
                                                                                                                                                                                                                                                                                                                                                                                                                                   46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13 AlaLeuLeuGlyThrAlaTrpAlaArgArg-----SerGlnAspLeuHisCysGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30 AlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAla------GlnVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 1924 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Brookes, A. Anders REGISTRATION NUMBER: 36,373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
CAAAATAAATTAGCTACTAAAAAAGCTGAATTG 973
                                                              ATTAGTAACCTTGAAATATTACTTGGAGGGGCTGATNCTGAAGATGATACTGCTGCTCTT
                                                                                                                                                           AspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerTleValGluGluTyrGlu 145
                                                                                                                                                                                                                                                          GCAAAAAAACAAACAGAACTTGAAAAACTTCTTGACAGCCTTGATCCTGAAGGTAAGACT 790
                                  LysAspLysLeuCysSerLysArgThrAspLeu 170
                                                                                                AspGluLeuIleGluPhePheSerArgGluAlaAspAsn-----
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Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
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NAME: Brookes, A. Anders
REGISTRATION NUMBER: 36,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
917 CAGGATGAATTAGATAAAGAAGCAGAAGAAGCTGAAGTTGGATAAAAAAGCTGATGAACTT 976
                               106 ValArgValValGlyArgAsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArgIle 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: PB
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Diskett
                                                                                                                                                 797
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TITLE OF INVENTION: Streptococcus pneumoniae Polynucleotides and Sequences
NUMBER OF SEQUENCES: 391
                                                                                                                                                                                                        746 GATAATITGAAAAAACTTCTTGCTGGTGCG------GATCCTGATGATGGCACAGAA 796
                                                                                                                                                                                                                                                                            686 AAACTTCAATATGAAATTTCTACTTTGGAACAAGAAGTTGCTACTGCTCAACATCAAGTA 745
                                                                                                                                                                                                                                                                                                                                               626 GCAACTCTAAAGGTAGCACTAGCGAAGAAGAAGTAGAGGCTAAGGAACTTGAAATTGAA 685
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                                                                                                                                                                     66 ValValGluValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluIle 85
                                                                                                                                                                                                                                         46 AspProLysLysThrIleGlnMetGlySerPheArgIleAsnProAspGlySerGlnSer 65
                                                                                                                                                                                                                                                                                                           30 AlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAla------GlnVal 45
                                                                                                                                                                                                                                                                                                                                                                              13 AlaLeuLeuGlyThrAlaTrpAlaArgArg-----SerGlnAspLeuHisCysGly
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: HP Vectra 486/33
OPERATING SYSTEM: MSDOS version 6.2
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                                                                                                  CysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyr 105
                                                                                                                                      GTTATAGAAGCTAAATTAAAAAAAAGGAGAAGCTGAGCTAAACGCTAAACAAGCTGAGTTA 856
                                                                 GCAAAAAAACAAACAGAACTTGAAAAACTTCTTGACAGCCTTGATCCTGAAGGTAAGACT 916
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Matches:
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Indels:
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Best Local Similarity:
Query Match:
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                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1007
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                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: (301) 309-8504
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                               23
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OPERATING SYSTEM: MSDOS V
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                                                                                                                                                                                                                                                                                                                      TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: A. Anders Brookes
REGISTRATION NUMBER: 36
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                                                                                                                                                                                                                                                                                                                                  LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/09/071,035
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                                                                             GlyTrpGlyTrpLeuAlaLeuLeuGlyAlaLeuLeuGlyThrAlaTrpAlaArgArg 22
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GCACAAGATGAAAATGTTAGTGGACTTAAAACCATATATGGATGATGACACAATCGGCTGG 337
                                                           GGCTGGTTATGGAATGCT----
                          SerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGlu-----LeuGluTrp 40
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9410 Key West Avenue
                                                                                                                                                                                                                                                                                                                                 1216 base pairs
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Matches:
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# RESULT 9 US-09-071-035-1
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                                                                                                                                                                       TELEFAX: (301) 309-85
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                     TELEPHONE: (301) 309-8504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                    SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Enterococcus faecalis Polynucleotides and Polypeptides NUMBER OF SEQUENCES: 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                       NAME: A. Anders Brookes REGISTRATION NUMBER: 36 REFERENCE/DOCKET NUMBER:
                                                                                                    STRANDEDNESS:
                                                                                                                    TYPE:
                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE:
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                                                                                  TOPOLOGY:
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STATE: Maryland
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DEDNESS: double
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                                                                                                                                1347 base pairs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Diskette, 3.50 inch, 1.4Mb storage
                                                                                                                                                                                     309-8512
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Length:
Matches:
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US-08-750-152A-1
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Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/08750152A Patent No. 5977331
                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
                    CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: FastSEQ Version 1.5
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                             APPLICANT: NAKAMATSU, TSUYOSHI
TITLE OF INVENTION: ALPHA-KETOGLUTARATE DEHYDROGENASE GENE
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  144 TyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys 160
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                                                                     APPLICATION NUMBER: FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         613
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                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                     STATE:
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                                                                                                                                                                                                                                                                                ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41 GluIleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyArgAsnGlyGluSerSerGlu------LeuAspLeuGlnGlyIle 123
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KIMURA, EIICHIRO
ABE, CHIZU
                                                                                                                                                                                                                                                                                                                                                            KAWAHARA, YOSHIO
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JEFFERSON DAVIS HIGHWAY,
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Mismatches:
Indels:
Gaps:
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                                                                                                                                                                                                                                                           FOURTH FLOOR
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Best Local Similarity:
Query Match:
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TELEFAX: 703-413-2220
INFORMATION FOR SEQ ID NO:
 3008 GGCATCACCGGCTCCCAGAAGCTTCCACACGGCCTTGAGACCAACATCTCCCGTGAAGAG
                                                                         2951
                                                                                                                             2900 CTCTCCAACGAA-----GATGCAGAAGCAGTCGTCCGCGACTTCCACGACCAGATG
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                                                                                                                                                                                                                                                                     2789
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                                       169 AspLeu------
                                                                                                         149
                                                                                                                                                     129 IleSerGlyThrLeuLysPheAlaCysGluSerIleValGluGluTyrGluAspGluLeu 148
                                                                                                                                                                                                                        111 ArgAsnGlyGluSerSerGluLeu-----AspLeuGlnGlyIleArgIleAspSerAsp 128
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REGISTRATION NUMBER: 24,618
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-413-3000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                    92
                                                                                                                                                                                                                                                                                                                                                                                                                    56 PheArgIleAsnProAspGlySerGlnSerValValGluValProTyrAlaArgSerGlu 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
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STRAIN: ATCC13869
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                                                             GAATCTGTGTTCAACGAAGTCAAGGAAGGCCGCCAAG---AAGCAGGCTGAGGCACAGACC
                                                                                           IleGluPhePheSerArgGluAlaAspAsnValLysAspLysLeuCysSerLysArgThr 168
                                                                                                                                                                                                                                                        CACAACGAAGCTGATGATCCTTCCATGACCCAGCCAAAGATGTATGAGCTCATCACCGGC
                                                                                                                                                                                                                                                                                TyrGlyGluGlnIleAspProSer---ThrHisArgLysAsnTyrValArgValValGly 110
                                                                                                                                                                                                                                                                                                                                               AlaHis------LeuThrGluLeuLeuGluGluIleCysAspArgMetLysGlu
                                                                                                                                                                                                                                                                                                                                                                                      TTCCACGTCAATGGTGATGACCCAGAGGCAGTTGTCTGGGTTGGCCAGCTGGCAACCGAG
                                                                                                                                                                                              CGCGAGACCGTTCGTGCTCAGTACACCGAAGACCTGCTCGGA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : 4394 base pairs nucleic acid
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443..4213
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4243..4281
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421..428
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281..287
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TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN
TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-20007.00
CURRENT APPLICATION NUMBER: US/99/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2
LENGTH: 4403765
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Best Local Similarity:
Query Match:
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US-09-103-840A-2/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4382232 GGGGATTCGACAAAGCTACGTGCGGCGGCT-------GTGGCGTGG 4382194
    4381938
                                                                                                                                                         4382013 TATGCCGCCCGCATCGAC---GCGGTGCAT------
                                                                                                                                                                                                                                                                                                               4382133 GTTATTCGCGCCCAGCAGCTCCCGGAGGCGGGCTGATCGAGTCGGCGTTTGCTGACGCG 4382074
                                                                                                                                                                                                                                                                                                                                                                                            4382193 CGCAGCGCGGCACGCAGTTCGCGCTGACTGAGATTCAGTCGACGGCGGGGCCGATGGGC 4382134
                                                                                                                                                                                                                                    4382073 TACGCCAGCACCACCGCTGTCGTGGGCCAATGCCAGCTGGCGGCCCCAGCTAGACGCC 4382014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: FRASER, Claire M. APPLICANT: VENTER, John C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: FLEISCHMAN, Robert D. APPLICANT: WHITE, Owen R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
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|||
                  132 ThrLeuLysPheAlaCysGluSerIleValGluGluTyrGluAspGluLeu------ 148
                                                                                                               112 AsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArgIleAspSerAspIleSerGly 131
                                                                                                                                                                                              92 TyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgValValGlyArg 111
                                                                                                                                                                                                                                                                        75 GluAlaHisLeuThrGluLeuLeu------GluGluIleCysAspArgMetLysGlu
                                                                                                                                                                                                                                                                                                                                                 55 SerPheArgIleAsnProAspGlySerGlnSerValValGluValProTyrAlaArgSer 74
                                                                                                                                                                                                                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22 --- ArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp 40
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---ATCAAAGAGGTGTGGGAGTTTCTGACCGACCAGGACGAAGACGAGATCCAGCGCATC 4381882
                                                                            -----GCGGCGGTCCTGGATTTGTTGGCC---CGCATCTGCGATCCGCTGACCGGG 4381939
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Matches:
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Indels:
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                                                                                                                                                                                       Db 4389775 TATGCCGCCCGCATCGAC---GCGGTGCAT------
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Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; LENGTH: 4411529
; TYPE: DNA
; ORGANISM: Mycobacterium tuberculosis
; OTHER INFORMATION: H37RV
US-09-103-840A-1
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US-09-103-840A-1/c
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Patent No. 6294328
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4389700 ---ATCAAAGAGGTGTGGGAGTTTCTGACCGACCAAGGACGAAGACGAGATCCAGCGCATC 4389644
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APPLICANT: VENTER, John C.
TITLE OF INVENTION: DIA SEQUENCES FOR STRAIN ANALYSIS IN MYCOBACTERIUM
TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-20007.00
COURRENT APPLICATION NUMBER: US/09/103,840A
CURRENT FILLING DATE: 198-06-24
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin Ver. 2.1
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                                         132 ThrLeuLysPheAlaCysGluSerIleValGluGluTyrGluAspGluLeu-----
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                                                                                                                                                                                                                                 TyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgValValGlyArg 111
                                                                                                                                                                                                                                                                                                                            GluAlaHisLeuThrGluLeuLeu------GluGluIleCysAspArgMetLysGlu
                                                                                        GCGGCGGTCCTGGATTTGTTGGCC---CGCATCTGCGATCCGCTGACCGGG 4389701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---GluIleAlaGlnValAspProLysLysThrIle---GlnMetGly 54
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39.90%
22.80%
8.49%
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Matches:
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                                                         US-10-082-502-17 (1-182) x US-08-837-029-1 (1-833)
                                                                                                                                    Percent Similarity:
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                                                                                                                        Best Local Similarity:
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Patent No. 5945303
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INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                          FEATURE
                                                                                                                                                                      No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: PETELECOMMUNICATION INFORMATION:
TELEPHONE: 301-309-8504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION DATA;
APPLICATION UNMBER: MO POFILING DATE: 11-APR-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: We1 et al.
TITLE OF INVENTION: Human Hematopoietic -
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
            63
                                                                                                                                                                                                                           NAME/KEY:
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                      7 LeuAlaLeuLeuLeuGlyAlaLeu---
                                                                                                                                                                                                                                                                      LOCATION:
                                                                                                                                                                                                                                                                                   NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 833 base pairs TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE:
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ZIP: 208
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CTGCTGCTGCTGGGAGCCTGGGCCATCCCAGGGGGCCTCGGGGACAGGGCGCCACTC 122
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108..608
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                     Length:
Matches:
Conservative:
Mismatches:
Indels:
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FILE REFERENCE: 1112-1-053
CURRENT APPLICATION NUMBER: US/08/993,380B
CURRENT FILING DATE: 1997-12-18
NUMBER OF SEQ ID NOS: 6
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
LENGTH: 1173
TYPE: DNA
ORGANISM: Homo sapiens (modified)
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                                                US-10-082-502-17 (1-182) x US-08-993-380-3 (1-1173)
                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
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                                                                                                                                                                                Alignment Scores:
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US-08-993-380-3
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APPLICANT: Sh1, Qinwei
APPLICANT: Song, Qian-Li
TITLE OF INVENTION: SINGLE CHAIN POLYPEPTIDES COMPRISING TROPONIN I AND
TITLE OF INVENTION: TROPONIN C
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Application US/08993380B Patent No. 6077676
10 LeuLeuGlyAlaLeuLeuGlyThrAlaTrpAlaArgArgSerGlnAspLeuH1sCysGly 29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             143 GluTyr---GluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLysAsp 161
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Matches:
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US-08-938-105-2
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                                                                                                                                                                                                                                                                                                                                                                    Sequence 2, Application US/08938105
Patent No. 6353151
GENERAL INFORMATION:
APPLICANT: Leinwand, Leslie A.
APPLICANT: Vikstrom, Karen L.
                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                           ATTORNEY/AGENT INFORMATION:
NAME: Crook, Wannell M.
REGISTRATION NUMBER: 31,071
REFERENCE/DOCKET NUMBER: 35
TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 863-9700
                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Sheridan Ross P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1000 GACAAAAATGCTGATGGCTACATCGAC 1026
                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
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                                                                                         CLASSIFICATION:
                                                                                                           FILING DATE:
                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                              CITY: Denver
                                                                                                                                                                                                                                                                                              STREET:
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DB:
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                                                                                                                    2992
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CTCAAGAAGAAGAGTTTGACATCAGTCAGCAGAACAGTAAAATAGAGGACGAGCAG
                                                                                   GluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLysAspLys 162
                                                                                                                  GAGCGAGCAAAGCGGAAGCTGGAGGGTGACCTGAAGCTGACCCAGGAGAAGCATCATGGAC
                                                                                                                                    Asp------IleSerGlyThrLeuLysPheAlaCysGluSerIleValGlu 142
                                                                                                                                                                                                                                                     AAGAAAGCTCTTCAAGAGGCCCACCAGCAAGCCCTAGATGACCTTCAGGCTGAGGAAGAC
                             LeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisIleSerHisAspGlu 181
                                                                                                                                                                                                       SerSerGluLeuAspLeuGlnGly-------IleArgIleAspSer 127
                                                                                                                                                                                                                                   AAGGTCAACACTGACC-----AAGTCTAAAGTCAAGCTG-----
                                                                                                                                                                                                                                                                                                                       GluAlaHisLeuThrGluLeuLeuGluGluIleCysAspArgMetLysGluTyrGlyGlu
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Sequence 173, App Sequence 174, App Sequence 179, App Sequence 479, App Sequence 479

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Result
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-DB=Published_Applications_NA .QFMT-fastap -SUFFIX=rnpb -MINMATCH=0.1
-LOOPCL=0 .LOOPEXT=0 .UNITS=bits -START=1 = ND=-1 -MATRIX=blosum62
-TRANS-human40.cdi -LIST=45 -DCCALIGN=200 -THR_SCORE=pct -THR_MX=100
-THR_MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT-pto -NORM=ext -HEAPSIZE=500 -MINLEN=0
-MAXLEN=200000000 -USER-USIO082502_CGCN_1 1.145_grunat_24032003_135103_6870
-NCPU=6 -ICPU=3 NO_XLPXY -NO_MMAP -LARGEQUERY -NGE_SCORES=0 -WAIT -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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-MODEL-frame+_p2n.model
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1: /cgn2_6/ptodata/2/pubpna/U

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Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
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9 US-10-028-072-173
9 US-10-121-049-173
9 US-10-123-904-173
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         Sequence 309, App
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                                                                                                        Description
APPLICANT: LOUES, MILITARY
APPLICANT: Algate, Paul A.
APPLICANT: Fling, Steve P.
APPLICANT: Mannion, Jane
APPLICANT: Mannion, Jane
APPLICANT: Menson, Darin R.
APPLICANT: Carter, Darin R.
APPLICANT: CARTER, DARIN R.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
ITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
CURRENT APPLICATION NUMBER: US/09/864,864
CURRENT FILING DATE: 2001-05-23
NUMBER OF SEQ ID NOS: 341
SOFTWARE: CORIXA Invention Disclosure Database
SEQ ID NO 309
LENGTH: 814
TYPE: DNA
ORGANISM: Homo saplens
         US-09-864-864-309
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APPLICANT:
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APPLICANT: Mitcham, Jen
APPLICANT: Harlocker, S
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Dillon, Davin C.
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US-10-142-419-173
US-10-123-262-173
US-10-121-620-173
US-10-141-755-173
US-10-141-755-173
US-09-846-398
US-09-864-864-228
US-09-866-873B-10
US-09-866-573B-10
US-10-035-855-58
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US-10-035-855-58
US-10-035-855-58
US-10-176-758-479
US-10-175-737-479
US-10-175-738-479
US-10-175-738-479
US-10-176-482-479
US-10-176-757-479
US-10-176-757-479
US-10-176-913-479
US-10-176-913-6-58
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US-10-175-746-173

US-10-176-918-173

US-10-176-921-173

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US-10-140-474-173

US-10-140-474-173

US-10-147-431-173
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Sequence 173, Application US
Publication No. US2003000431
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Mauree
APPLICANT: DeForger, Laura
APPLICANT: DeForger, Laura
APPLICANT: DeForger, Laura
APPLICANT: Genoyers, Luc
APPLICANT: Genoyers, Luc
APPLICANT: Godowski, Paul J
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APPLICANT: Godowski, Paul J
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                                                               Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
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Desnoyers, Luc
Filvaroff, Ellen
                         Wood, William
                                              Tumas, Daniel
Watanabe, Colin K
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R FILING DATE: 1997-10-17
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60/073612 60/072320

60/074086

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60/069694 60/069334 60/069278

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NUMBER: 60/091982
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OR APPLICATION NUMBER: 60/081818
OR APPLICATION NUMBER: 60/081818
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OR APPLICATION NUMBER: 60/08299
OR FILING DATE: 1998-04-24
OR APPLICATION NUMBER: 60/083322
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OR FILING DATE: 1998-04-28
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APPLICATION NUMBER: 60/084637
FILING DATE: 1998-6-07085149

APPLICATION NUMBER: 60/084627

APPLICATION NUMBER: 60/085149 FILING DATE: 1998-05-12

60/085323

APPLICATION NUMBER: FILING DATE: 1998-09 APPLICATION NUMBER:

NUMBER: 60/085338 1998-05-13 1998-05-1 OR FILING DATE: 1998-03-12
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OR FILING DATE: 1998-03-20
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OR FILING DATE: 1998-02-27
OR APPLICATION NUMBER: 60/079728
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OR FILING DATE: 1998-03-27
OR APPLICATION NUMBER: 60/080165
OR FILING DATE: 1998-03-31
OR APPLICATION NUMBER: 60/081203
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OR APPLICATION NUMBER: 60/081203

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APPLICANT: Beresini, Mauree
APPLICANT: DeForge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wel Olang
APPLICANT: Gerritsen, Mary
APPLICANT: Goddard, Audrey
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                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID
SEQ ID NO 173
LENGTH: 1210
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P330R1C17
CURRENT APPLICATION NUMBER: US/10/121,049
CURRENT FILING DATE: 2002-04-12
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 550
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                                                   GAAATTGCCCAGGTGGACCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCA
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Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
Watanabe, Colin K
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Desnoyers, Luc
Filvaroff, Ellen
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Best Local Similarity:
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                                                                                                                                                           ; ORGANISM: Homo Sapien
US-10-123-904-173
                                                                                                                Score:
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
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APPLICANT:
APPLICANT:
APPLICANT:
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APPLICANT:
APPLICANT:
APPLICANT:
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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Watanabe, Colin K
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Gerritsen, Mary E.
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Filvaroff, Ellen
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APPLICANT: Zhang, Zemin

TITLE OF INVENTION: SCENETED AND TRANSMEMBRA

TITLE OF INVENTION: SCIENTED AND TRANSMEMBRA

TITLE OF INVENTION: ACIDS ENCODING THE SAME

FILE REFERENCE: P3330R1C160

CURRENT APPLICATION NUMBER: U5/10/140,470

CURRENT APPLICATION TEMOVED - See Palm or File

Prior Application removed - See Palm or File

NUMBER OF SEO ID NOS: 550

SEO ID NO 173

LENGTH: 1210

TYPE: DNA

ORGANISM: Homo Sapien

US-10-140-470-173
  Alignment Scores: Pred. No.:
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US-10-140-470-173
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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DeForge, Laura
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Filvaroff, Ellen
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Best Local Similarity:
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APPLICANT: Beresini, Mau
APPLICANT: DeForge, Laur
APPLICANT: Desnoyers, Lu
APPLICANT: Desnoyers, Lu
APPLICANT: Gao, Wei-Qlan
APPLICANT: Gear, Wei-Qlan
APPLICANT: Gerritsen, Madr
APPLICANT: Goddard, Audr
APPLICANT: Godowski, Pau
APPLICANT: Godowski, Pau
APPLICANT: Sherwood, Stee
APPLICANT: Sherwood, Stee
APPLICANT: Smith, Victor
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                                 APPLICANT:
APPLICANT:
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C353
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Filvaroff, Ellen
Gao, Wei-Qiang
Gerritsen, Mary E.
                                                                   Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A
Tumas, Daniel
                                    Zhang,
                                            Watanabe, Colin K
Wood, William
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Conservative:
Mismatches:
Indels:
Gaps:
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RESULT 7
US-10-176-918-173
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; Publication No. US200;
; GENERAL INFORMATION;
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Pred. No.:
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; ORGANISM: HOMO
US-10-175-746-173
APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Mauree
APPLICANT: DeForge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wel-Qiang
APPLICANT: Goddard, Audrey
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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CURRENT FILING DATE: 2002-06-19
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 Beresini, Maureen
DeForge, Laura
Desnoyers, Luc
Filvaroff, Ellen
Gao, Wel-Qiang
Gerritsen, Mary E.
Goddard, Audrey
                                                                                               Application US/10176918 o. US20030027275A1
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APPLICANT: Gurney, Austin L.
APPLICANT: Sherwood, Steeven
APPLICANT: Smith, Victoria
APPLICANT: Stewart, Timothy A.
APPLICANT: Stewart, Timothy A.
APPLICANT: Watanabe, Colin K
APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
APPLICANT: Wood, William
APPLICANT: Thang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POL
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C382
CURRENT APPLICATION NUMBER: US/10/176,918
CURRENT FILING DATE: 2002-06-20
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NUMBER OF SEQ ID NOS: 550
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; ORGANISM: Homo
US-10-176-918-173
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; ORGANISM: Homo Sapien
US-10-176-921-173
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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CURRENT APPLICATION NUMBER: US/10/176,921
CURRENT FILING DATE: 2002-06-20
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
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ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys
                      CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
                                     GlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIle
                                                                   CATCGCAAGAACTACGTACGTGTAGTGGGCCCGGAATGGAGAATCCAGTGAACTGGACCTA
                                                                                H18ArgLysAsnTyrValArgValValGlyArgAsnGlyGluSerSerGluLeuAspLeu
                                                                                                              CTGCTGGAGGAGATATGTGACCGGATGAAGGAGTATGGGGGAACAGATTGATCCTTCCACC
                                                                                                                                                                        AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu
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Godowski, Paul J.
Gurney, Austin L.
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Gerritsen, Mary E.
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; TYPE: DNA
; ORGANISM: Homo :
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION
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CURRENT FILING DATE: 2002-05-03
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C154
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APPLICANT: Beres
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                                                                                   LeuLeuGluGluIleCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThr 100
                                            AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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Gerritsen, Mary E.
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Filvaroff, Ellen
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DeForge, Laura
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o. US20030032155A1
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SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
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CURRENT FILING DATE: 2002-05-06
                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C162
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Gurney, Austin L.
Sherwood, Steven
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FENGTH: 1210
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: 93330R1C251
CURRENT APPLICATION NUMBER: US/10/142,431
CURRENT FILING DATE: 2002-05-10
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TYPE: DNA
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
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Desnoyers, Luc
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Best Local Similarity:
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                                          APPLICANT:
APPLICANT:
APPLICANT:
        APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C211
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Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
Watanabe, Colin K
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NUMBER OF SEQ ID NOS: 550
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Gao, Wei-Qiang
Gerritsen, Mary E.
Goddard, Audrey
                                                             Baker, Kevin
                                            DeForge, Laura
                                                     Beresini, Maureen
                                                                            Application US/10140002 o. US20030037623A1
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NUMBER OF SEQ ID NOS: 550
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Sherwood, Steven
Smith, Victoria
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CURRENT APPLICATION NUMBER: US/10/142,419

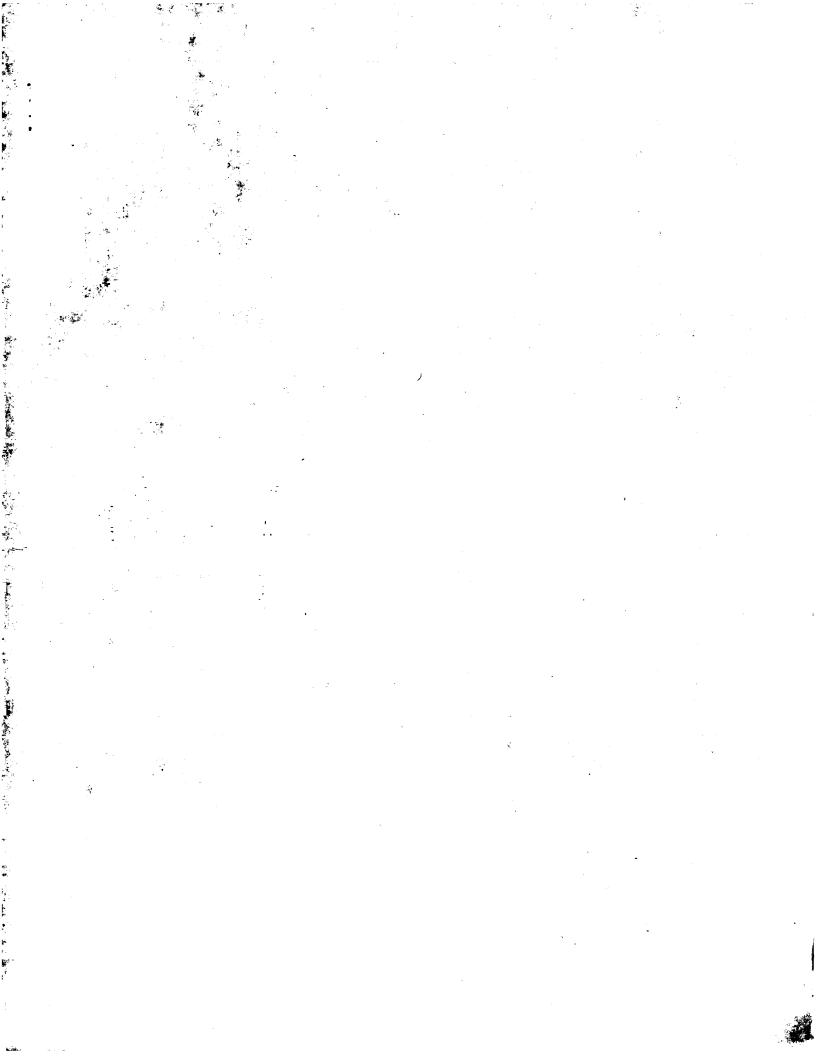
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                                          CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
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Filvaroff, Ellen
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CURRENT APPLICATION NUMBER: US/10/123,262
CURRENT FILING DATE: 2002-04-15
Prior Application removed - See File Wrapper or NUMBER OF SEQ ID NOS: 550
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Goddard, Audrey
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Gurney, Austin L.
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                       GluLeu 182
                                                                                                                                                   CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
                                                                                                                                                                GlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIle 140
                                                                                                                                                                                                    CATCGCAAGAACTACGTACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTA
                                                                                                GTGGAGGAATACGAGGATGAACTCATTGAATTCTTTTCCCGAGAGGCTGACAATGTTAAA
                                                                                                                          160
                                                                                                                                                                                                    902
                                                 1082
                                                                                                  1022
                                                                                                                                                   962
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Search completed: March 31, 2003, 11:59:04
Job time: 58.0233 secs



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Command line parameters:

-MODEL-frame+_pin.model -DEV=xip
-MODEL-frame+_pin.model -DEV=xip
-Q-/cgn2_1/USPTO_spool/US10082502/runat_24032003_135100_6599/app_query.fasta_1.1308
-Q-/cgn2_1/USPTO_spool/US10082502/runat_CH-0.1 -LOOPCL-0 -LOOPEXT-0
-Q-/cgn2_1/USPTO_spool/US10082502/runat_State-ninendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-chendel-che
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Maximum Match 100%
Listing first 45 summaries
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Fgapop 6.0,
Delop 6.0,
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

AUTHORS		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION		DEFINITION	LOCUS	BM832828	RESULT 1
<pre>1 (bases 1 to 588) Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and</pre>	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	Homo sapiens	human.	EST.	BM832828.1 GI:19189237	BM832828	5', mRNA sequence.	iens cDNA	BM832828 588 bp mrNA linear EST 06-MAR-2002		

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BASE COUNT
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DB:
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Best Local Similarity:
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ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp 40
                                                          GluIleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro 60
                                                                                                                       CGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGG
                                                                                                                                                                                                                                               Korea Research Institute of Bioscience & Biotechnology 52 Eceun-dong Yuseong-gu, Daejeon 305-333, South Korea Tel: +82-42-860-4470 Fax: +82-42-860-4409
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Contact: Kim YS
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Location/Qualifiers
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Plate: 11 row: B column: 03
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21C Frontier Korean EST Project 2001
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/db_xref="taxon:9606"
/clone="S5SNU484s1-11-B03"
/clone_lib="S5SNU484s1"
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/cell_line="SNU-484"
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1 (bases 1 to 591)
Kim, N.S., Hahn, Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: yongsung@mail.kribb.re.kr
Plate: 11 row: H column: 01
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Fax: +82-42-860-4409
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Kim YS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oh, K.J., Cheong, J.E.,
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/cell_type="Epithelial"
/cell_tine="SNU-484"
//cell_line="SNU-484"
//ab_host="Top10M4"
/lab_host="Top10M4"
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/db_xref="taxon:9606"
/clone="$5$NU484$1-11-H01"
/clone_lib="$5$NU484$1"
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Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                  GACAAACTTTGCAGTAAGCGAACAGATCTTTGTGACCATGCCCTGCACATATCGCATGAT
                                                                                                                                                                        GTGGAGGAATACGAGGATGAACTCATTGAATTCTTTTCCCGAGAGGCTGACAATGTTAAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           was circularized with E. coli DNA ligase after digestion of EcoRI which site is also included in vector. An RNA strand converted to a DNA strand by Okayama-Berg method. The obtained converted to a DNA strand by Okayama-Serg method. The obtained cDNA vectors were used for transformation of competent cells E. coli ToplOF' by electroporation method. After analyzing and sequencing about 2,000 ~ 3,000 colonies in original cDNA library, the abundant cDNAs were selected and amplified by PCR reaction using vector region primer including T7 promotor as 5 primer and N(dT)14 as 3 primer. The PCR products were used as template for synthesis of biotinylated single stranded RNA by in vitro transcription reaction. The synthesized RNA probes were hybridized with antisense single stranded cDNAs prepared from original liberary and incubated with avidin-gel. After removing DNA-RNA hybrids by centrifuge, the subtracted cDNA libraries were constructed by the subtracted cDNA libraries were constructed by the coli ToplOF' with electroporation method."
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GluIleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
                                            CGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGG
                                                                    ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Melton,D., Brown,J., Kenty,G., Permutt,A., Lee,C., Kaestner,K., Lemishka,I., Scearce,M., Brestelli,J., Gradwohl,G., Clifton,S., Hillier,L., Marra,M., Pape,D., Wylle,T., Martin,J., Blistain,A., Schmitt,A., Theising,B., Ritter,E., Ronko,I., Bennett,J., Cardenas,M., Gibbons,M., McCann,R., Cole,R., Tsagareishvili,R., Williams,T., Jackson,Y., and Bowers,Y.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: dmelton@biohp.harvard.edu
Library was constructed by Dr. Hiroshi Inoue DNA sequencing by
Washington University Genome Sequencing Center For information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Endocrine Pancreas Consortium
Harvard University, Howard Hughes Medical Institute
Dept of Molecular and Cellular Biology, 7 Divinity Ave, Cambridge,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Douglas Melton, Klaus H.
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Melton,D., Brown,J.
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Size-selected on agarose gel. Average insert size -1kb. 5'
XhOI site was destroyed after directional cloning.
Amplified once. Contact information: Hiroshi Inoue, MD,
Metabolism Div. (Alan Permutt Lab), Washington University
School of Medicine, Box 8127, 660 South Euclid Ave., St.
Louis, MO 63110, E-mail: hinoue@imgate.wustl.edu, Tel:
314-362-1916, Fax: 314-747-2692.**
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/clone="IMAGE:5085832"
/clone_lib="HR85 islet"
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/lab_host="DH10B"
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                                                                                                                                                                                                                                                                                                                                                  Email: cgapbs-r@mail.nih.gov
Tissue Procurement: David N. Louis, M.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortiv
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National Institutes of Health, Mammalian
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Clone distribution: MGC clone distribution information can
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          /Organism="Homo sapiens"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/clone=_1ib="NCI_CGAP_Brn64"
/clone=_1ib="NCI_CGAP_Brn64"
/tissue_type="glioblastoma with EGFR amplification"
/tissue_type="glioblastoma with EGFR amplification"
/tab_host="DH10B (TI phage-resistant)"
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
/site_2: SalI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.57 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
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                                         Contact: Robert Strausberg, Ph. Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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601568370F1 NIH_MGC_21
                                                                          National Institutes of Health, Unpublished (1999)
                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                                                                                                                                                           mRNA sequence.
CDNA Library Preparation: Ling Hong/Rubin Laboratory CDNA Library Arrayed by: The I.M.G.E. Consortium (1 DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information
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                                                                    CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
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/note="Organ: placenta; Vector: pOTB); Site_1: XhoI;
Site_2: EcoRI; cDNA made by oldordT priming.
Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies)."

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Percent Similarity:
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                                                                                                                                                                                                                                                                              21 ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
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LeuLeuGluGluIleCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThr
                                                      cDNA Library Preparation: Ling Hong/Rubin Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: NIH Intramural Sequencing Center Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image-llnl.gov k column: 13 High quality sequence stop: 740.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished (1999)
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National Institutes of Health, Mammalian
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/lab_host="DH10B (phage-resistant)"
/lab_host="Drgan: colon; Vector: poTB7; Site_1: XhoI; Site_2:
EcoRI; CDNA made by oligo-dT priming. Directionally
cloned into EcoRI/XhoI sites using the following 5,
adaptor: GGCACGAG(G). Size-selected >500bp for average
insert size 1.8kb. Library constructed by Ling Hong in
the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies)"
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/db_xref="taxon:9606"
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Mammalla; Eutherla; Primates; Catarrhini;
1 (bases 1 to 745)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
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601581586F1 NIH_MGC_7
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cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
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                                                                                                /lab_host="DH10B (phage-resistant)"
/note="Organ: lung: Vector: pOTB7; Site_1: XhoI; Site_2: EcoRI; cDNA made by oligo-dT priming. Directionally cloned into EcoRX/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies)."
a 180 c 237 g 146 t
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/clone_lib="NIH_MGC_7"
/tissue_type="small cell carcinoma"
/cell_line="MGC3"
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/db_xref="taxon:9606"
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AGENCOURT_6572552 NIH_MGC_41 Homo
5', mRNA sequence.
BM552907
                   CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM.968 row: C column: 07
                                                                                                                             Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
                                                                                                                                                                                                                                                                                               EST
                                                                                                                                                          Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                       NIH-MGC http://mgc.nci.nih.gov/.
                                                                                                                                                                                                                     Mammalia; Eutheria;
1 (bases 1 to 1117)
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quality sequence stop: 709 
Location/Qualifiers
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Vertebrata; i; Hominidae;

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linear

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Gene Collection (MGC)

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258 c 320 g 239 t 1 others
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/clone_lib="NIH_MGC_41"
/tlssue_type="amelanotic melanoma, '/lab_host="DH10B (phage-resistant)"
/hab_nost="DH10B (phage-resistant)"
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/organism="Homo sapiens"
/db_xref="taxon:9606"
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC/DCTD/DTP
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National Institutes of Health, M
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/lab_host="DHIOB (phage-resistant)"
/note="Organ: skin; Vector: pCMV-SPORT6;
Site_2: Sall; Cloned unidirectionally. p
Average insert size 2 kb. Library const
Technologies."
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Email: cgapbs r@mail.nih.gov

Tissue Procurement: Miklos Paukovits, M.D., Ph.D.

CDNA Library Preparation: Michael J. Brownstein (NHGRI), Sh

Toshiyuki and Piero Carninci (RIKEN)

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can
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National Institutes of Health, Mammalian
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/tissue_type="hippocampus"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5264328"
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NIH_MGC_95 Homo sapiens cDNA clone IMAGE:5264328 5',
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NIH-MGC http://mgc.nci.nih.gov/.
                                                                                                                                                                                                     found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAM13197 row: d column: 14
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Tissue Procurement: DCTD/DTP/Gazdar
                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        National Institutes of Health, Unpublished (1999)
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/organism="Homo sapiens"
/db_xref="taxon;9606"
/clone="IMAGE:6009949"
/clone_lib="NIH_MGC_68"
/tissue_type="large_cell
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Primates;
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                                                                                            mRNA sequence.
BG704443
BG704443.1 GI
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 791)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collect
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602688633F1 NIH_MGC_95
                                                            Homo sapiens
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/note="Organ: lung; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: Sal1; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.8 kb. Library constructed by Life
Technologies. "
203 c 257 g 168 t 8 others
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Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Miklos Palkovits, M.D., Ph.D.
CDNA Library Preparation: Michael J. Brownstein (NHGRI), S
Toshiyuki and Piero Carninci (RIKEN)
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM10727 row: a column: 09
High quality sequence stop: 785.
ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys
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/clone_lib="NIH_MGC_95"
/tlssue_type="hippocampus"
/lab_host="DH10B"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Miklos Palkovits, M.D., Ph.D.
cDNA Library Preparation: Michael J. Brownstein (NHGRI), Sh
Toshiyuki and Piero Carninci (RIKEN)
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.linl.gov
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Munpublished (1999)
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/tissue_type="hippocampus"
/lab_host="DH10B"
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/db_xref="taxon:9606"
/clone="IMAGE:5264339"
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                                                                                                                                                                 Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itch,M., Konno,H., Okazāki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10 (10), 1617-1630 (2000)
            Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kitsunai,T., Tashiro,H., Itoh,M., Sumi,N., Ishi,Y., Nakamura,S., Hazama,M., Nishine,T., Harada,A., Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y.
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Mus musculus adult male hippocampus cDNA, RIKEN full-length
enriched library, clone:2900022B12:transmembrane protein 4,
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Adachi, J., Aizawa, K., Akahira, S., Akimura, T., Aono, H., Arai, A., Arakawa, T., Baldarelli, R., Bono, H., Brownstein, M., Bult, C., Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanagaki, T., Hara, A., Hayatsu, N., Hill, D., Hiramoto, K., Hiraoka, T., Hori, F., Hume, D., Imotani, K., Ishil, Y., Itoh, M., Izawa, M., Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Kono, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Quackenbush, J., Saito, H., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Schriml, L., Shibata, K., Shibata, Y., Shinagawa, A., Shiraki, T., Tanaka, T., Tejima, Y., Toya, T., Yamanura, T., Yamanaka, I., Hayashizaki, Y., Yoshida, K., Yoshida, K., Yoshido, M., Muramatsu, M., and Direct Submitshi, A., Yoshida, K., Yoshino, M., Muramatsu, M., and
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                                                                                                                                                                                             CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN.

Division of Experimental Animal Research in Riken contributed to 15 GAGAGAGAGAGCCCAACAGCTCTTTTTTTTTTTTTTTVN 3', CDNA was prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by cap-trapper. Second GAGAGAGAGTTAATTAAATTAATCCCCCCCCCC 3']. cDNA was cleaved GAGAGAGAGATTATTATTATATCCCCCCCCCC 3']. cDNA was cleaved Host: SOLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Please visit our web site (http://genome.gsc.riken.go.jp/) for further details.
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/db_xref="FANTOM_D8:2900022B12"
/db_xref="MGD:MGI:1896245"
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                                                                                                      AspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisIleSerHisAsp
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/dev_stage="adult"
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Adachi,J., Aizawa,K., Akahira,S., Akimura,T., Aono,H., Arai,A., Adachi,J., Aizawa,K., Bono,H., Brownstein,M., Bult,C., Arakawa,T., Baldarelli,R., Bono,H.,Y., Furuno,M., Hanagaki,T., Carninci,P., Fukuda,S., Fukunishi,Y., Furuno,M., Hanagaki,T., Harat,A., Hayatsu,N., Hill,D., Hiramoto,K., Hiracka,T., Hori,F., Hume,D., Imotani,K., Ishii,Y., Itoh,M., Izawa,M., Kasukawa,T., Karo,H., Kawai,J., Kojima,Y., Konno,H., Kouda,M., Koya,S.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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                                                                                                                                                                                                                                                                                                                                                      Functional
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Sciurognathi; Muridae;
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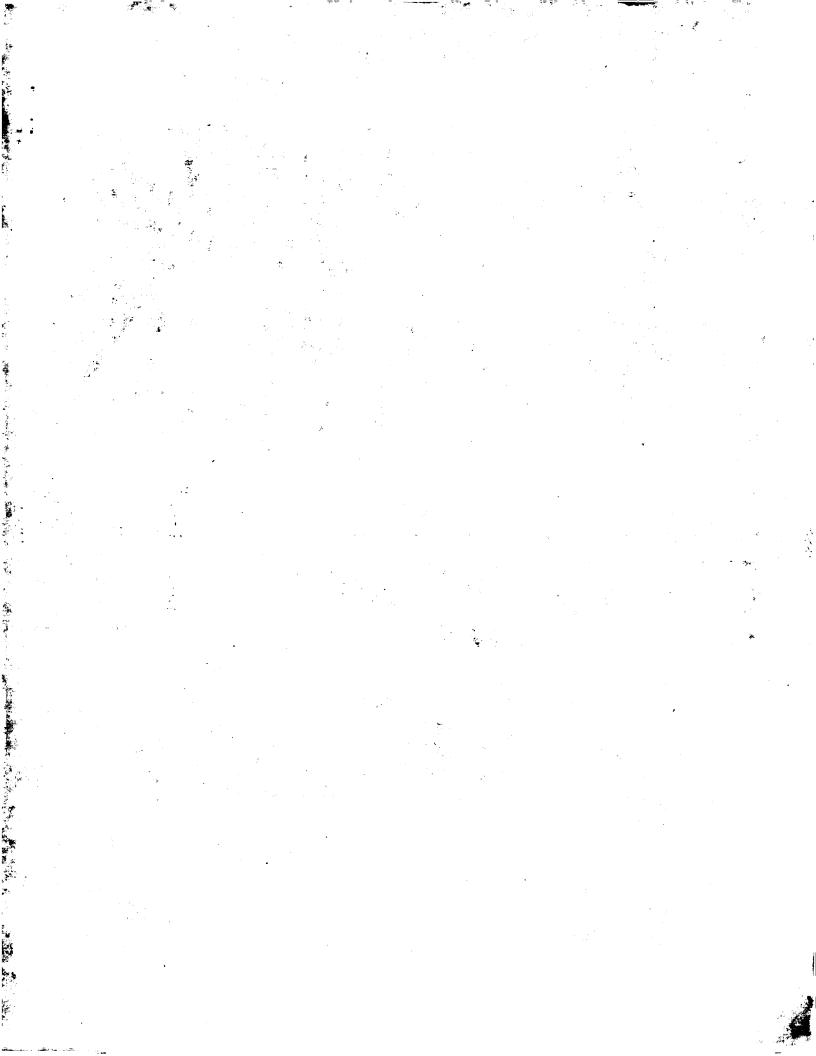
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US-10-082-502-17 (1-182) x AK007914 (1-772)
                                                                                      Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      URL:http://genome.gsc.riken.go.jp/,
Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-reségsc.riken.go.jp, URL:http://genome-gsc.riken.go.jp/, Tel:81-45-503-9222,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute Physical and Chemical Research (RIKEN), Laboratory for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sogabe,Y., Suzuki,H., Tagami,M., Tagawa,A., Takahashi,F., Tanaka,T., Tejima,Y., Toya,T., Yamamura,T., Yamanaka,I., Yasunishi,A., Yoshida,K., Yoshino,M., Muramatsu,M. and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Please visit our web site (http://genome.gsc.riken.go.jp/) for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
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/db_xref="MGD:MGI:1897650"
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/strain="C57BL/6J"
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Search completed: March 31, 2003, 04:51:05 Job time: 1173.85 secs



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Command line parameters:

-MODEL-frame+_pln.model -DEV=xlp
-Q-/cgn2_1/USPTO_spool_VUS10082502/runat_24032003_135059_6547/app_query.fasta_1.1308
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-DB-GenEmbl -QFWF_fastap -SUFFIX-rge -MINMATCH-0.1 -LOOPCL-0 -LOOPEXT-0
-UNITS-bits -START-1 -END--1 -MATRIX-blosum62 -TRANS-human40.cdi -LIST-45
-DOCALIGN-200 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALIGN-15 -MODE-LOCAL
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-USER-US10082502_eCGN_1_1_4758_erunat_24032003_135059_6547 -NCPU-6 -ICPU-3
-NO_XLPXY -NO_MMAP -LARGEQUERY -NEG_SCORES-0 -WAIT -LONGLOG -DEV_TIMEOUT-120
-WARN_TIMEOUT-30 -THREADS-1 -XGAPOF-10 -XGAPEXT-0.5 -FGAPOP-6 -FGAPEXT-7
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                                                                                          CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
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Lodes,M.J., Algate,P.
Carter,D.
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/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      perection of cDNAs encoding putative type II membrane the cell surface from a human full-length cDNA bank Gene 228 (1-2), 161-167 (1999)
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type II membrane protein.
type II membrane protein.
Homo sapiens gastric adenocarcinoma
clone_lib:pKA1-meta-1 clone:HP10390.
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/db_xref="taxon:9606"
/clone="Hp10390"
/tissue_type="gastric adenocarcinoma"
/clone_lib="pxAl-meta-1"
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleost
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1080)
Bornhauser,B.C., Olsson,P.-A. and Lindholm,D.
NSAP is a novel saposin-like protein that interacts with MIR
stimulates neurite outgrowth
                                                                                                                                                                                                                                                                                                                                                                                                                            1080 bp
Homo sapiens saposin-like protein
AY032624
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Olsson, P.-A. and Lindholm, D.
                                                                                                                                                                                                                                                                           Submitted (13-APR-2001) Neuroscience, Husargatan 3, Uppsala 75123, Sweden
                                                                                                                                                                                                                                                                                                 Direct Submission
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                                                                                                                                                                                  /note="NSAP; encodes a type 2 membrane
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                                                                                                                                                                                                                                                                       Sequence 17:
AX464040
AX464040.1
                                                                                                                                          Baker, K.P., Beresini, M., Deforge, L., Desnoyers, L., Filvaroff, E., Gao, W.Q., Gerritsen, M.E., Goddard, A., Godowski, P.J., Gurney, A.L., Sherwood, S., Smith, V., Stewart, T.A., Tumas, D., Watanabe, C.K., Wood, W.L. and Zhang, Z.
Secreted, and transmembrane polypeptides and nucleic acids encoding.
                                                                                                                                                                                                                          Homo sapiens
Eukaryota; M
                                                                                                               Genentech
                                                                                                                       Patent:
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ch Inc. (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                            173
                                                      /organism="Homo sapiens"
/db_xref="taxon:9606"
316 c 379 g 25
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1.88e-87
960.00
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                                                                                                                                                                                                                                                                                             1210 bp
WO0140466
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Length:
Matches:
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 NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Chu-Xia Deschallbrary Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genom
                                                                                      Direct Submission
Submitted (22-MAY-2001) National Institutes of Heagene Collection (MGC), Cancer Genomics Office, Nationatitute, 31 Center Drive, Room 11A03, Bethesda,
                                                                                                                                      Strausberg, R
                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
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da, MD 20892-2590,
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US-10-082-502-17 (1-182) x BC008261 (1-798)
ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
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This clone was selected for full length sequencing passed the following selection criteria: matched mR Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu,
Yoon, V.S., Kowis, C.R., Lawrence,
Richards, S., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequencing Center
Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="MGC:6853 IMAGE:2650612"
/tissue_type="Mammary tumor. Br
months old, gross tissue."
/clone_lib="NCI_CGAP_Mam3"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product="transmembrane protein 4"
/protein_id="AAH08261.1"
/db_xref="GI:14198401"
/db_xref="LocusID:56530"
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/translation="MKGWGWLALLLGVLLGTAWARRSQDLHCGACRALVDELEWEIAR
VDPKKTIQMGSFRINPDGSQSVVEVPYARSEAHLTELLEEVCDRMKEYGEQIDPSTHR
KNYVFVSRNGESSELDLQGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK
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182 c 228 g 1
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/db_xref="taxon:10000"
/map="129,C57BL/6J,FVB/N"
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                                               GluLeu 182
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                                 ATGAAAGGCTGGGGTTGGCTAGCCCTACTTTTGGGGGGTCCTGCTGGGAACTGCCTGGGCT
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 ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (14-SEP-1999) Biomolecular Informatics, ZymoGenetics, Inc., 1201 Eastlake Ave. East, Seattle, WA 98102, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         O'Hara, P.
Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                              /gene="Zsig9"
343. .891
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="IMAGE:476061"
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/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism-"Mus musculus"
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Matches:
Conservative:
Mismatches:
Indels:
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protein ZSIG9 (Zsig9)
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VERSION
KEYWORDS
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         Muzny, D. M., Adams, C., Adio-Oduola, B., Ali-osman, F.R., Allen, C., Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Banks, T., Barbaria, J., Balbrooks, S.L., Amaratunge, K., Bonnin, D., Bouck, J., Bowle, S., Bireva, M., Brown, E., Brown, M., Bryant, N.P., Buck, J., Bowle, S., Bireva, M., Brown, E., Brown, M., Bryant, N.P., Buck, J., Bowle, S., Bireva, M., Brown, E., Brown, M., Bryant, N.P., Buck, J., Bowle, S., Bircva, M., C., Carren, T.F., Charles, S., Bireva, M., C., Chen, G., Chen, G., Chen, S., Chen, S., Chen, S., Chen, S., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Ding, Y., Dinh, H.H., Douthwaite, K.J., Draper, H., Denn, A.L., Ding, Y., Dinh, H.H., Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Hamilton, K., Harris, C., Harris, K., Hayte, M., Haylak, P., Hawes, A., Hollins, B., Homsi, F., Howard, S., Huber, J., Hulyk, S., Hume, J., Jockson, L.E., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Karlsson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Kratovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L.C., Louiseged, H., Lozado, R.J., Lu, X., Lucler, A., Lucler, R., Luna, R., Martindale, A., Martindale, A., Martindale, A., Martindale, A., Martindale, A., Martindale, A., Martindale, R., Martindale,
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1 (bases 1 to 158198)
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Mawhiney, E., McLeod, M.P., er, G., Miner, Z., Mitchell, 7
Mitchell, T.,
Mohabbat, K.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (19-OCT-1999) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Jul 13, 2001 this sequence version replaced gi:14547727.
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Direct Submission
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(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently
consists of 5 contigs. The true order of the pieces
is not known and their order in this sequence record is
arbitrary. Gaps between the contigs are represented as
runs of N, but the exact sizes of the gaps are unknown.
This record will be updated with the finished sequence
as soon as it is available and the accession number will
be preserved.
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150247
150347
153411
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153511
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Consensus quality: 161278 bases at least Q40

Consensus quality: 170806 bases at least Q30

Consensus quality: 174843 bases at least Q20

Estimated insert size: 168803; sum-of-contigs estimation

Estimated insert size: 163288; agarose-fp estimation

Quality coverage: 5x in Q20 bases; squrof-contigs estimation

Quality coverage: 5.8x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center: Baylor Collège of Medicine
Center code: BCM
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Center project name: HMKZ
Center clone name: RP11-764L14
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Chemistry: Dye-terminator Big Dye: 100% of reads
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                                                                                                                        2
                                                                                                                                             /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="12"
/clone="RP11-764L14"
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                                                                                                                                                                                                                                                                                                 Location/Qualifiers
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6: gap of unknown length
6: contig of 41917 bp in length
6: gap of unknown length
7: contig of 3064 bp in length
7: gap of unknown length
7: gap of unknown length
7: gap of unknown length
7: contig of 2229 bp in length
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Length:
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ACCESSION
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Query Match:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Db 152291 GATGGCAGCCAGTTCAGTTGGGAGGTACCTTATGCCCGCTCAGAGGCCCACCTCACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Db 152171 CGAAGGAGCCAAGATCTACACTGTGGAGCTTGCAGGGCTCTGGTGGATGAATTAGAGTGG
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                                                                                                                                                                                                                                                                                                                                                              SOURCE
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Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  152351 TTGCTTGAGGAGGTGTGTGACCGAATGAAGGAGTACGGGGGAACAGATTGACCCTTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21 ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
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Carron,T.F., Carter,M., Cavazos,S.R., Chacko,J., Chavez,D., Chen,G., Chen,R., Chen,Z., Chowdhry,I., Christopoulos,C., Cleveland,C.D., Cox,C., Coyle,M.D., Dathorne,S.R., David,R., Davila,M.L., Davis,C., Davy-Carroll,L., Dederich,D.A., Delaney,K.R., Delgado,O., Denn,A.L., Ding,Y., Dinh,H.H., Douthwaite,K.J., Draper,H., Dugan-Rocha,S., Durbin,K.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens chromosome 12 clone SEQUENCE, 12 unordered minorial accordance.
                                                                                                                                            Bouck, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Buhay, C., Burch, P., Burkett, C., Burrell, K.L., Byrd, N.C.,
                                                                                                                                                                               Muzny, D.M., Adams, C., Adio-Oduola, B., Ali-osman, F.R., Allen, C. Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Ayele, M., Banks, T., Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, N. Barbaria, J., Benton, J., Bimage, R., Brown M., Brwant, N. P.
                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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RP11-348M3, WORKI
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3 DRAFT
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Homel, F., Howard, S., Huber, J., Hulk, S., Hume, J., Jackson, L. E., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Karlsson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Kratovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L., Li, J., Li, 2., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Louiseged, H., Lozado, R. J., Lu, X., Lucier, A., Lucier, R., Luna, R., Ma, J., Maheshwari, M., Mapua, P., Martin, R., Martindale, A., Martinez, E., McLeod, M.P., Meador, M., Mel, G., Metzker, M., Massey, E., Martindale, A., Martinez, E., Miner, G., Miner, S., Mitchell, T., Mohabbat, K., Morgan, M., Morris, S., Moyen, N., Nguyen, N., Nickerson, E., Newtson, N., Nguyen, N., Nguyen, N., Nickerson, E., Newtson, N., Nguyen, N., Nguyen, N., Nickerson, E., Newtson, N., Nguyen, N., Nguyen, N., Nickerson, E., Pace, A., Payton, B., Peery, J., Perez, L., Pickens, R., Primus, E., Pu, L.L., Quilles, M., Ron, Y., Rives, M., Rojas, A., Rojubokan, I., Rolfe, M., Ruiz, S., Savery, G., Scherer, S., Scott, G., Shen, H., Shooshtari, N., Sisson, I., Scherer, S., Sott, G., Shen, H., Shooshtari, N., Sisson, I., Sutton, A., Svatek, A., Tabor, P., Tamerisa, A., Tamerisa, K., Tang, H., Tansey, J., Paylor, C., Taylor, T., Telfrod, B., Thomas, N., Thomas, S., Ward, N., Wang, S., Ward, M., Wallalamson, A., Wallalams, G., Walliamson, A., Wallamson, R., Wang, Q., Weinstock, G. and Glbbs, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (09-MAY 2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On May 3, 2002 this sequence version replaced g1:20335511.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
Submitted (11-MAR-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 155023)
                                    NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a "vorking draft" sequence. It currently consists of 12 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
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                                                                                                                                                                                                                                                                    Sequencing vector: M13;

Chemistry: Dye-primer Bodipy: 5% of reads
Chemistry: Dye-terminator B1g Dye: 95% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 141522 bases at least Q40
Consensus quality: 147097 bases at least Q30
Consensus quality: 150442 bases at least Q30
Consensus quality: 150442 bases at least Q30
Estimated insert size: 150706; sum-of-contigs estimation
Quality coverage: 4x in Q20 bases; sum-of-contigs estimation
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Best Local Similarity:
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CysGluSerIleValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAla 156
                                                                                                                                                                                  AAGTGAAGGCAAGAGGCCTCTTATTGCCCTGTGTCACCCATTTCTCCCCTTGGGTTGGCAG 55761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTAGCGGCACCCTCAAGTTTGCGGTGAGCTATGGGAATCGGTAGCTGGTTCTTGGACAT 55881
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/db_xref="taxon:9606"
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51104: contig of 8741 bp in length
51204: gap of unknown length
68306: contig of 17102 bp in length
68406: gap of unknown length
109481: contig of 41075 bp in length
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REFERENCE AUTHORS TITLE

JOURNAL

Direct Submission Worley, K.C.

COMMENT

3033: contig of 3033 bp in length

Center: Baylor College of Medicine Center code: BCM

REFERENCE AUTHORS TITLE

Worley, K.C. Unpublished Direct Submission

(bases 1 to 155023)

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TITLE JOURNAL

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     55580 GAAACCTCTGGTATTAGGTCAAGAGCTGTCTTCCATTTCCCTTGGCTTAGGGGGACTTGGG 55521
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        Allen, C., Adion, C., Adio-Oduola, B., Ali-osman, F.R., Allen, C., Alsbrooks, S.L., Amarratunge, H.C., Are, J.R., Ayele, M., Banks, T., Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Bouck, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bouck, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bouck, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bouck, J., Bowie, S., Brown, M., Bryant, N.P., Bouck, J., Bowie, S., C., Chacko, J., Chavez, D., Charge, C.C., Elhaj, C., Escotto, M., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Escotto, M., Delaney, K.R., Ding, Y., Dinh, H.H., Delaney, K.R., Ding, Y., Dinh, H.H., Delaney, K.R., Delgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Frantz, P., Frantz, P., Garza, N., Gill, R., Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Hamilton, K., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J., Houst, S., Hume, J., Jackson, L.E., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Karlys, C., Kiraly, S., Khan, U., King, L., Korvah, J., Kovar, C., Karlys, S., Khan, U., King, L., Korvah, J., Kovar, C., Karlys, J., Lichtarge, O., Lieuf, C., Liu, J., Liu, W., Louiseged, H., Lozado, R.J., Lucier, R., Lucier, R., Lucier, R., Luca, R., Ma, J., Lucier, R., Lucier, R., Luna, R., Ma, J., Lucier, R., Lucier, R., Luna, R., Ma, J., Lucier, R., Lucier, R., Medor, M., Metzker, M., Wetzker, M., Metzker, M., Metzker, M., Metzker, M., Shooshtari, N., Siss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HisIleSerHisAspGluLeu 182
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Shooshtari, N.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (24-AUG-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Aug 23, 2002 this sequence version replaced of 22224602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (01-JUL-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA 3 (bases 1 to 182350)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NOTE: Estimated insert size may differ from sequence length (see http://www.bgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 5 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of W. but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                      46453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                be preserved
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chemistry: Dye-primer Bodipy: 15% of reads
Chemistry: Dye-terminator Big Dye: 85% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 179279 bases at least Q40
Consensus quality: 180581 bases at least Q30
Consensus quality: 180581 bases at least Q20
Consensus quality: 181073 bases at least Q20
Estimated insert size: 174258; sum-of-contigs estimation
Quality coverage: 8x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequencing vector: Plasmid; Sequencing vector: M13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center project name: HBWI
Center clone name: RP11-977G19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Web site: http://www.hgsc.bcm.tmc.edu/
Draftling Center Code: BCM
Contact: hgsc-help@bcm.tmc.edu
Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Center: Baylor College of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----- Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Center code: BCM
                                                                                                                                                                                                                                                                              2894
2994
6687
6787
17252
17352
                                                                                                    /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                          Location,
                                                clone="RP11-977G19"
                                                                          'chromosome="12"
                                                                                                                                                                                                           85894: contig of 68543 bp in 85994: gap of unknown length 182350: contig of 96356 bp in
                                                                                                                                                                                                                                                                                            2893: contig of 2893 bp in length
2993: gap of unknown length
6686: contig of 3693 bp in length
6786: gap of unknown length
17251: contig of 10465 bp in length
17351: gap of unknown length
                         O
                                                                                                                                                                                          /Qualifiers
                         43855
                    9
                         46174 t
                    452 others
                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                        length
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Alignment Scores:

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SOURCE
ORGANISM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Db 171547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /ERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC023500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         171727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   171787
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               69 ValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluIleCysAspArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspAsnValLysAspLysLeuCysSerLysArgThrAsp-LeuCysAspHisAlaLeuHi 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTGAAGGCAAGAGGCCTCTTATTGCCCCTGTGTCACCCATTTCTCCCCTTGGGTTGGCAG 171668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAAGGGGTTGTTGGAGAACCAATTAGAAAGTTAGGCTGATATCCTTGTCCTCCTCTTTGG 1711728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MetLysGluTyrGlyGluGlnIleAspProSerThrHisargLysasnTyrValArgVal 108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTGAGAGCATTGTGGAGGAATACGAGGATGAACTCATTGAATTCTTTTCCCGAGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CysGluSerIleValGluTyrGluAspGluLeuIleGluPhePheSerArgGluAla 156
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACAATGTTAAAGACAAACTTTGCAGTAAGCGAACAGGTAAGCTGCCCCCACTTTATCTC 171548
             Bouck, J., Bowle, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Buhay, C., Burch, P., Burkett, C., Burrell, K.L., Byrd, N.C., Carzon, T.F., Carter, M., Cavazos, S.R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M. D., Bathorne, S.R., David, R., Davila, M.L., Davis, C., Day-Carroll, L., Dederich, D.A., Davila, M.L., Davis, C., Day-Carroll, L., Dederich, D.A., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Douthwaite, K.J., Daper, H., Dugan-Rocha, S., Durbin, K.J., Dusthaite, K.J., Daper, H., Dugan-Rocha, S., Durbin, K.J., Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Gabisi, A., Gao, J., Garcia, A., Gancer, T., Garza, N., Gill, R., Carroll, T., Garza, N., Gill, R., Carroll, T., Garza, N., Gill, R., Carroll, T., Garza, N., Gall, R., Carroll, T., Garza, N., Gall, R., Carroll, T., Garza, N., Garza, N., Garza, N., Garza, N., Garca, N., Garca, N., Garza, M., Garza, N., Garza, M., Garza, N., Garza, N., Garza, N., Gar
                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 184762)

Muzny,D.M., Adams,C., Adio-Oduola,B., Ali-osman,F.R., Allen,C., Alsbrooks,S.L., Amaratunge,H.C., Are,J.R., Ayele,M., Banks,T., Barbaria,J., Benton,J., Bimage,K., Blankenburg,K., Bonnin,D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HOMO SAPIENS CHTOMOSOME 12 CIONE RP11-183H16, WORKING DRAFT SEQUENCE, 9 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC023500.32 GI:22095070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HTGS_PHASE1; HTGS_DRAFT; HTGS_FULLTOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         171541
,J.Н.,
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481.00
63.80%
63.19%
50.10%
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              153
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COMMENT

runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.

2040: contig of 2040 bp in length 2140: gap of unknown length

JOURNAL TITLE

```
Hernandez,O., Hodgson,A., Hogues,M., Holloway,C., Hollins,B.,
Homsi,F., Howard,S., Huber,J., Hulyk,S., Hume,J., Jackson,L.E.,
Jacobson,B., Jia,Y., Johnson,R., Jolivet,S., Joudah,S.,
Karlsson,E., Kelly,S., Khan,U., King,L., Korvah,J., Kovar,C.,
Karlsson,E., Kelly,S., Khan,U., King,L., Kovar,C.,
Kratcovic,J., Kureshi,A., Landry,N., Leal,B., Lewis,L.C., Lewis,L.,
Li,Z., Lichtarge,O., Lieu,C., Liu,J., Liu,W., Louiseged,H.,
Lozado,R., J., Lu,X., Lucier,A., Lucier,R., Luna,R., Ma,J.,
Maheshwari,M., Mapua,P., Martin,R., Martindale,A., Martinez,E.,
Maheshwari,M., Mapua,P., Martin,R., Mardor,M., Mei,G., Metzker,M.,
Miner,G., Miner,Z., Mitchell,T., Mohabbat,K., Morgan,M., Morris,S.,
Muyen,N., Nickorson,E., Nwokenkwo,S., Oguh,M., Okwuonu,G.,
Oragunye,N., Oviedo,R., Payton,B., Peery,J., Perez,L.,
Peters,L., Pickens,R., Primus,E., Pu,L.L., Quiles,M., Ren,Y.,
Rives,M., Rojas,A., Rojubokan,I., Rolfe,M., Rulz,S., Savery,G.,
Scherer,S., Scott,G., Shan,H., Shooshtari,N., Sisson,I.,
Scherer,S., Scott,G., Shan,H., Shooshtari,N., Shoosh,H.,
Suransay,J., Taylor,C., Taylor,T., Telfrod,B., Thomas,N., Thomas,S.,
Williams,G., Walliamson,A., Waleczyk,R., Woden,S., Worley,K.,
Wu,C., Wu,Y., Wu,Y.F., Zhou,J., Zorrilla,S., Nelson,D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (24-AUG-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Aug 4, 2002 this sequence version replaced g1:22094227.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (15-FEB-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA 3 (Dases 1 to 184762)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Worley, K.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Worley, K.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Harris, C., Harris, K., Hart, M., Havlak, P.,
NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 9 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Caps between the contigs are represented as
                                                                                                                                                                                                                                                                                                                                        Sequencing vector: Plasmid;
Sequencing vector: M13;
Sequencing vector: M13;
Sequencing vector: M13;
Chemistry: Dye-primer Bodipy: 2% of reads
Chemistry: Dye-terminator Big Dye: 98% of reads
Chemistry: Dye-terminator Dye-terminator
Consensus quality: 183845 bases at least Q20
Consensus quality: 185447 bases at least Q20
Egetimated insert size: 159026; sum-of-contigs estimation
Quality coverage: 8x in Q20 bases; sum-of-contigs estimation
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/organism="Homo sapiens"
/db_xref="taxon:9606"
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MetLysGluTyrGlyGluGlnIleAspProSerThrH1sArgLysAsnTyrValArgVal 108
                                                                               Submitted (26-JAN-2002) Lita Annenberg Hazen Genome Sequencing Center, Cold Spring Harbor Laboratory, 1 Bungtown Road, Cold Spring Harbor, Ny 11724, USA
On Jan 26, 2002 this sequence version replaced gi:18201765.
This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30), an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (24-FEB-2001) Lita Annenberg Hazen Genome Sequencing Center, Cold Spring Harbor Laboratory, 1 Bungtown Road, Cold Spring Harbor, NY 11724, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kirchoff,K., Kuit,K., Nascimento,L., Zutavern,T., Balija,V., Bell,M., Baker,J., Santos,L., Miller,B., Katzenberger,F., Miller,S., King,L., Yang,C., Palmer,L., O'Shaughnessy,A. and
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48132. .48165
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/db_xref="taxon:10090"
/clone="RP23-104010"
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Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., David, R., Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A., Davila, M.L., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edgar, D., Elagg, M., Ford, J., Garza, N., Gill, R., Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J.H., Guevara, W., Gunaratne, P., Hawes, A., Hernandez, J., Harris, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J., Hernandez, O., Hodgson, A., Hogues, M., Holloway, C., Hollins, B., Homsi, F., Undayson, R., Jolivet, S., Joudah, S., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Kratovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L.C., Lewis, L., Li, J., Li, L., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Louiseged, H., Lozado, R.J., Lu, X., Lucler, R., Lucler, R., Luna, R., Ma, J., Maheshwari, M., Mapua, P., Martin, R., Martindale, A., Martinez, E., Maswiney, E., McLeod, M.P., Meador, M., Mei, G., Metzker, M., Mainer, G., Metzker, M., Mainer, G., Metzker, M., Manner, G., Metzker, M., Man
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (08-FEB-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (13-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Jul 12, 2002 this sequence version replaced gi:18860222.
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Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                           NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 47 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                        arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
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RESULT 13 AF186113 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE	Qy 150 t Db 98112 t	Qy 136 · Db 98052 (97992	Oy 135	135	рь 97872 (Оу 135	97812	Qу 135	97752	129	Qy 109 ч рь 97692 «	Qy 89 1 Db 97632 1	Qy 69 1 Db 97572 (US-10-082-	Alignment Sc Pred. No.: Score: Score: Percent Simi Best Local S Query Match: DB:	BASE COUNT ORIGIN	source	PENTURE C
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                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 824)
 Submitted (17-NOV-2000) National Institutes
                         Strausberg, R.
                                                                        Homo sapiens
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IMAGE:3344788,
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/db_xref="dbEST:R15366"
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/chromosome="12"
/map="12q15"
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VDPKKTIQMGSFRINPDGSQSVVEVTVTVPPNKVAHSGFG"
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/protein_id="AAF01431.1"
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                                                                  ArgargSerGlnaspLeuHisCysGlyalaCysargalaLeuValaspGluLeuGluTrp 40
                                                                                                                                                                                                MetLysGlyTrpGlyTrpLeuAlaLeuLeuGlyAlaLeuLeuGlyThrAlaTrpAla
                                                                                                                                                                          ATGAAAGGCTGGGGTTGGCTGGCCCTGCTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAL Plate: 5 Row: p Column: 13
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 6014631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Web site: http://www.nisc.nih.gov/
Contact: nisc_mgc@nhgri.nih.gov
Shevchenko,Y., Wetherby,K.D., Beckstrom-Sternberg,S.M.,
Beckstrom-Sternberg,S.M.,
Benjamin,B., Blakesley,R.W., Bouffard,G.G., Brinkley,C., Brooks,S.,
Benjamin,B., Guan,X., Gupta,J., HO,S.-L., Karlins,E., Legaspi,R.,
Lim,M., Maduro,Q.L., Mastello,C., Mastrian,S.D., McCloskey,J.C.,
McDowell,J., Pearson,R., Snyder,B., Stantripop,S., Thomas,P.J.,
Tiongson,E.E., Touchman,J.W., Tsurgeon,C., Vogt,J.L., Walker,M.A.,
Zhang,L.-H. and Green,E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaithersburg, Maryland;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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Contact: MGC help desk
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Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /translation="mkGWGWLALLLGALLGTAWARRSQDLHCGACRALVDELEWEIAQ
VDPKKTIQMGSFRINPDGSQSVVEVTVTVPPNKVAHSGEG"
194 c 233 g 176 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone="MGC:1545 IMAGE:3344788"
/tissue_type="Sye, retinoblastoma"
/clone_ile="NIH_MGC_16"
/lab_host="DH10B-R"
/note="Yector: POTB7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product="transmembrane protein
/protein_id="AAHO1027.1"
/db_xref="GI:12654403"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon_start=1
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Matches:
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Indels:
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REFERENCE AUTHORS

VERSION KEYWORDS

ACCESSION

SOURCE

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RESULT 15
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                                                                                                                                                     Submitted (13-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
On Jul 11, 2002 this sequence version replaced gi:17974643.
                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (24-NOV-2001) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA 3 (bases 1 to 69753)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Worley, K.C.
Direct Submission
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Muzny,D.M., Adams,C., Adio-Oduol,
Alsbrooks,S.L., Amaratunge,H.C.,
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Mammalla; Eutherla; Rodentla; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 69753)
                                                                              Center: Baylor College of Medicine
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http://www.hgsc.bcm.tmc.edu/
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                                           ВСМ
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REFERENCE AUTHORS TITLE

JOURNAL

COMMENT

in length

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TITLE

JOURNAL

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arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
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NOTE: This is a 'working draft' sequence. It currently
consists of 42 contigs. The true order of the pieces
is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  as soon as it is available and the accession number will be preserved.
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Chemistry: Dye-terminator Big Dye: 100% of reads
Assembly program: Phrap: version 0.990329
Consensus quality: 15506 bases at least Q40
Consensus quality: 17125 bases at least Q30
Consensus quality: 18271 bases at least Q30
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1466: gap of unknown 1
2632: contig of 1166 b
2732: gap of unknown 1
3919: contig of 1187 b
4019: gap of unknown 1
5169: contig of 1150 b
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gap of unknown contig of 1512 gap of unknown contig of 1722 gap of unknown contig of 1198 gap of unknown contig of 1198 gap of unknown contig of 1198 gap of unknown contig of 1294 gap of unknown contig of 1294 gap of unknown contig of 1294 gap of unknown contig of 1617 gap of unknown contig of 1704 unknown contig of 1395 gap of unknow
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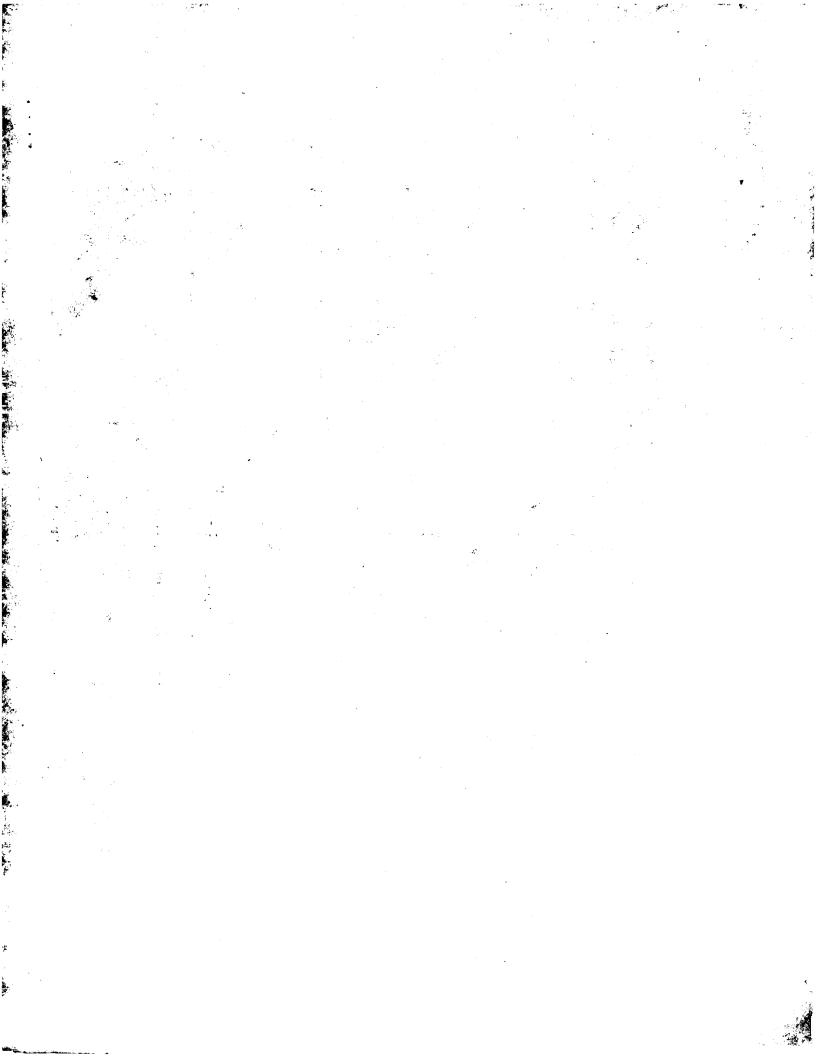
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US-10-082-502-17 (1-182) x AC103156 (1-69753)
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Best Local Similarity:
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41221: contig of 1245 bp in length
41221: contig of 1845 bp in length
41321: gap of unknown length
43330: contig of 1809 bp in length
44734: contig of 1809 bp in length
46199: contig of 1365 bp in length
46299: gap of unknown length
49161: gap of unknown length
49161: gap of unknown length
49161: gap of unknown length
51159: contig of 1898 bp in length
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51167: contig of 1908 bp in length
51169: contig of 1908 bp in length
51609: contig of 1747 bp in length
51741: gap of unknown length
5741: gap of unknown length
5746: contig of 1407 bp in length
575003: contig of 1407 bp in length
60621: contig of 1908 bp in length
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Search completed: March 31, 2003, 03:37:06 Job time: 1882.3 secs



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Total number of hits satisfying chosen parameters:
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Copyright (c) 1993 - 2003 Compugen Ltd.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutherla; Rodentia; Sciurognathi; Muridae; Murinae; Mus 1 (bases 1 to 1017) Sheppard,P., Jelinek,L., Whitmore,T., Blumberg,H., Lehner,J. and O'Hara,P.
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AX460465 Sequence
AX400489 Genomic sapi
AC090489 Genomic sapi
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AC01027 Homo sapi
AC109891 Rattus no
AF186113 Homo sapi
AC40375 Sequence
AC025574 Homo sapi
AC023500 Homo sapi
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AC03375 Sequence
AX096688 Sequence
AX096788 Rattus no
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AX08687 Sequence
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AC27284 Homo sapi
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AC037444 Homo sapi
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AC03766 Homo sapi
AC008060 Homo sapi
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AK026029 Homo sapi
AL110225 Homo sapi
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BC008261 Mus muscu
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Database :

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gb_pl:*
gb_pr:*

gb_om:*

gb_sts:*

Pred. No.

em_htg_mus:*
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em_sy:*

em_htg_hum: *
em_htg_inv: *

em_un: em_ro:*

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em_om:* em_mu:* em_in:* em_hum: *

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Minimum DB Maximum DB

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Title: Perfect score:

US-10-082-502-18 1069

Run on: OM nucleic

nucleic search, using sw model

March 30, 2003, 18:34:08;

Scoring table: Sequence:

IDENTITY_NUC Gapop 10.0 , Gapext 1.0

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O'Hara, P.
Direct Submission
Submitted (14-SEP-1999) Biomolecular Informatics, ZymoGenetics, Inc., 1201 Eastlake Ave. East, Seattle, WA 98102, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus putative 
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Homo sapiens chromosome 12 clone
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                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
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Primates;
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GACCGAATGAAGGAGTACGGGGAACAGATTGACCCTTCTACCCCACCGCAAGAACTACGTA
CGGACAGATCTATGTGACCATGCCCTGCACAGATCTCACGATGAGCTATGAATCACTGGA 915
                                                                                                                                                                                                                                                                                                           TCAGATATCAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGAAGAATACGAGGAT 795
                                                                                               GCAAGCAGCCTACACCAAACGTGATGGAACACCCCCCAGGAGGGGAAGATGGCAGCATTGC 975
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                                                                           GCAAGCAGCCTACACCAAACGTGATGGAACACCCCCCAGGAGGGGAAGATGGCAGCATTGC 960
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HTGS_PHASE1; HTGS_DRAFT; HTGS_ACTIVEFIN pieces DNA linear HTG 17-JUL-2001 RP11-764L14, WORKING DRAFT

Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.

Mammalia; Eutheria; Prinates; Caterrihin; Hominidae; Homo, Mammalia; Eutheria; Prinates; Caterrihin; Hominidae; Homo, Madams, C., Adio-Oduola, B., Ali-Osman, F.R., Allen, C., Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Banks, T., Barbaria, J., Benton, J., Blange, K., Blankenburg, K., Bonnin, D., Bouck, J., Boutch, P., Burkett, C., Burrell, K.L., Byrd, N.C., Carron, T.F., Carter, M., Cavazos, S.R., Checko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., David, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J., Earnhart, C., Edgar, D., Edwards, C.C., Elbaj, C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J.H., Guevara, W., Gunaratne, P., Halle, S., Hernandez, J., Hernandez, O., Hodgson, A., Hogues, M., Holloway, C., Hollins, B., Homsi, F., Howard, S., Khan, U., King, L., Korvah, J., Kovar, C., Karlsson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Karlsson, E., Kerlsy, S., Khan, U., Leal, B., Lewis, L.C., Lewis, L., Li, J., Li, Z., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Lewis, L., Massey, E., Mawhiney, E., McLeod, M.P., Meador, M., Michell, T., Mohabbat, K., Marlsson, K., Moser, M., Nellow, R., Pacco, N., Newtson, N., Nguyen, N., Nguyen, N., Nallo, R., Pacca, A., Payton, B., Gunles, M., Oxward, R., Paters, L., Pickens, R., Prinus, E., Pull, L., Quiles, M., Ren, Y., Rives, M., Rojas, A., Rojubokan, I., Rolfe, M., Ruiz, S., Savery, G., Scherer, S., Scott, G., Shen, H., Shooshtari, N.,

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Sisson, I., Sodergren, E., Sonaike, T., Sparks, A., Stanley, H., Stone, H., Sutton, A., Svatek, A., Tabor, P., Tamerisa, R., Tangy, H., Tansey, J., Taylor, C., Taylor, T., Telfrod, B., Thomas, N., Thomas, S., Usmani, K., Vasquez, L., Vera, V., Villalon, D., Vinson, R. Wall, R., Wang, S., Ward-Moore, S., Warren, R., Washington, C., Watlington, S., Williamson, A., Wleczyk, R., Wooden, S., Worley, K., Wu, C., Wu, Y.F., Zhou, J., Zorrilla, S., Nelson, D., Weinstock, G., and Gibbs, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of Molecular and Human Genetics, Baylor College
Baylor Plaza, Houston, TX 77030, USA
On Jul 13, 2001 this sequence version replaced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (19-OCT-1999) Human Genome Sequencing of Molecular and Human Genetics, Baylor College
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       as soon as it is available and the accession number be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).
NOTE: This is a 'working draft' sequence. It currently
consists of 5 contigs. The true order of the pieces
is not known and their order in this sequence record is
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Summary Statistics
Sequencing vector: M13; L08821
Chemistry: Dye-terminator Big Dye: 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 161278 bases at least Q30
Consensus quality: 170806 bases at least Q30
Consensus quality: 174843 bases at least Q30
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/db_xref="taxon:9606"
/chromosome="12"
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Pred. No. 2.4e-204;
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IMAGE:2650612,
BC008261
                          Direct Submission
Submitted (22-MAY-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                         Strausberg, R
   NIH-MGC Project URL:
                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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http://mgc.nci.nih.gov
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                                                                                             GAGGAGGTGTGTGACCGAATGAAGGAGTACGGGGAACAGATTGACCCTTCTACCCACCGC
                                         AGCCAGTCAGTTGTGGAGGTACCTTATGCCCGCTCAGAGGCCCACCTCACAGAGTTGCTT
                                                                                                                                                                                                          GCTGGGGTTGGCTAGCCCTACTTTTGGGGGTCCTGCTGGGAACTGCCTGGGCTCGAAGG
                                                                                                                                                                    AGCCAAGATCTACACTGTGGAGCTTGCAGGGCTCTGGTGGATGAATTAGAGTGGGAAATT 483
                                                                                                                                                                                                                                                                GGGCCACGGCGGCGGCGGGAGCAGAGGTGGAGCGACCCTGTTACACTAAAGATGAAA 363
                                                                                                                                                      AGCCAAGATCTACACTGTGGAGCTTGCAGGGCTCTGGTGGATGAATTAGAGTGGGAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Clone distribution: MGC clone distribution information can be for through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 5 Row: b Column: 23
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 9903600 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: MGC help desk
Email: cgapbs r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Chu-Xia Deng
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genome
Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Hale, S.M.,
Yoon, V.S., Kowis, C.R., Lawrence, S., Martin, R.G., Muzny, D.M.
Richards, S., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Web site: http://www.hgsc.bcm.tmc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center code: BCM-HGSC
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months old, gross tissue."
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RNYVRYVSRNIGESSELDIGGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNYK
DKLCSKRTDLCDHALHRSHDEL"
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/db_xref="taxon:10090"
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NSAP is a novel saposin-like |
stimulates neurite outgrowth
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                                                                                                                                                                                                                                                                                                                                                       Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia; Eutheria;
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/map="12q15"
419. .967
                                       DKLCSKRTDLCDHALHISHDEL*
269 c 343 g 2
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CTTTGCAGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCACGATGAGCTA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (13-APR-2001) Neuroscience, Husargatan 3, Uppsala 75123, Sweden
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens saposin-like protein mRNA, AY032624
AY032624.1 GI:20196198
/product="saposin-like protein"
/protein_id="AAK38148.1"
/db_xref="GI:20196199"
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VDPKKTIQMGSFRINPDGSQSVVEVPYARSEAHLTELLEEICDRMKEYGEQIDPSTHR
KNYVRVYGRNGESSELDLQGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK
                                                                                                                                                                                                    /note="NSAP; encodes a type 2 membrane
putative ER retention motif"
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Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                     CAGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCACGATGAGCTATGAAT
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                                                                                                                                           AATTGACTCAGATATCAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGAAGAATA
                                                                                                                                                                                                            GGTGTGTGACCGAATGAAGGAGTACGGGGAACAGATTGACCCTTCTACCCACCGCAAGAA
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         GCAATGCCTTTATATATTATGTTTTTACTGAAATTAACTGAAAAAA
                 GCATTGCCTTT--TATATTACGTTTTTATGGAAATGAACTGAAAAAA 1013
                                        CACTGGAGCAGCCCAC----
                                                                                                      CGAGGATGAGCTTATCGAATTCTTCTCCAGAGAGGCTGACAACGTTAAAGACAAACTTTG
                                                                                                                                                                                                   GATATGTGACCGGATGAAGGAGTATGGGGAACAGATTGATCCTTCCACCCATCGCAAGAA
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GGTGGACCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCAGATGGCAGCCA
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Mammalia; E
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Sequence 17:
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AX464040.1
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/db_xref="taxon:9606"
316 c 379 g 25
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Eutheria; Primates; Catarrhini; Hominidae;
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                GGTCCTGCTGGGAACTGCCTGGGCTCGAAGGAGCCAAGATCTACACTGTGGAGCTTGCAG
GGCTCTGGTGGATGAATTAGAGTGGGAAATTGCCCGCGTGGACCCCAAGAAGACCATTCA
                                                    ANAGTGAGAGTCCAGCGGTCTTCCAGCGCTTGGGCCACGGCGGCGGCCCTGGGAGCAGAG
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; |
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                            Carter, D.
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                                                                                                                                                                                                                                                                                  Compositions and methods
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/db_xref="taxon:9606"
194 c 241 g 16
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Mannion, J., Benson, D.R.
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AB015631.1 GI:4586839
type II membrane prottein.
Homo sapiens gastric adenocarcinoma clone_lib:pKA1-meta-1 clone:HP10390.
Homo sapiens
                                                                                              Submitted (16-JUN-1998) Seishi Kato, Research Institute Rehabilitation Center for the Disabled, Department of Rehabilitation Engineering; 4-1 Namiki, Tokorozawa, Sait 359-855, Japan (E-mail:seishi@rchab.go.jp, Tel:042-995-3100(ex.2568), Fax:042-995-3132)
                                                                                                                                                                                                                                           Yokoyama-Kobayashi,M., Yamaguchi,T., Sekine,S. and Kat
Selection of cDNAs encoding putative type II membrane
the cell surface from a human full-length cDNA bank
Gene 228 (1-2), 161-167 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens mRNA clone: HP10390.
                                                                                                                                                                                  Direct Submission
                                                                                                                                                                                               Kato, S.
                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="HP10390"
/tissue_type="gastric ad
                                                                                 Location/Qualifiers
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BASE COUNT ORIGIN

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ROD 26-JAN-2002

complete

Murinae; Mus.

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Query Match
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                                TTTATGGAAATGAACTGAAAAAA 1013
                                                                        GGCTTGATGGATCACCCCCAGGAGGGGAAAATGGTGGCAATGCCTTTTATATATTATGTT
                                                                                                       AACGTGATGGAACACCCCCAGGAGGGGAAGATGGCAGCATTGCCTTT--TATATTACGTT
             TTTACTGAAATTAACTGAAAAA
                                                                                                                                             CCATGCCCTGCACATATCGCATGATGAGCTATGAACCACTGGAGCAGCCCAC----ACT
                                                                                                                                                                    TTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGCAGTAAGCGAACAGATCTTTGTGA
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/protein_id="BAA76498.1"
/protein_id="BAA76498.1"
/db_xref="GI:4586840"
/translation="MKCWGGWLALLIGALLGTAWARRSQDLHCGACRALVDELEWEIAQ
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KNYVRVVGRNGESSELDLQGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK
DKLCSKRTDLCHALHISHDEL"
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0; Mismatches 94;
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                                                                    72244 GCCGCCTTAGGCTCAGTTTCGGTGGGGGGCTCGCACGGGACCCTCAGATCTCCGCTTAG
             72304
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GTGCCTAGTTAAGTGCGGGAAGCTGGGCCAGGCGGTCACTGGCCACCCTGAACCTGGCGG
                                                                                             GGCGGGCTTAGGGTCAGTTTCGGTGGGGGGGCTCGCACGGGACCCTCAGATCTCCGGCTTAG 135
                   GTGCCTAGTTAAGTGCGGGAAGCTGGGCCAGGCGGTCACTGGCCACCCTGAACCTGGCGG 195
                                                                                                                                                                                                                             321;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (26-JAN-2002) Lita Annenberg Hazen Genome Sequencing Center, Cold Spring Harbor Laboratory, 1 Bungtown Road, Cold Spring Harbor, W 11724, USA
On Jan 26, 2002 this sequence version replaced gi:18201765.
This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >- 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest.
                                                                                                                                                                                                                                             Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genomic sequence for Mus musculus, clone RP23-104010, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           McCombie,W.R., de la Bastide,M., Spiegel,L., Preston,R.,
Kirchoff,K., Kuit,K., Nascimento,L., Zutavern,T., Ballja,V.,
Bell,M., Baker,J., Santos,L., Miller,B., Katzenberger,F.,
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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/db_xref="taxon:10090"
/clone="RP23-104010"
/clone_11b="RPCI-23"
48132.48165
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                                                                                                                                                                                                                                                                                                                                                                                                                     clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAL Plate: 5 Row: p Column: 13 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA g1: 6014631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: nisc_mgc@nhgri.nih.gov
Shevchenko,Y., Wetherby,K.D., Beckstrom-Sternberg,S.M.,
Benjamin,B., Blakesley,R.W., Bouffard,G.G., Brinkley,C., Brooks,S.,
Benjamin,B., Blakesley,R.W., Bouffard,G.G., Brinkley,C., Brooks,S.,
Dietrich,N.L., Guan,X., Gupta,J., Ho,S.-L., Karlins,E., Legaspi,R.,
Lim,M., Maduro,Q.L., Masiello,C., Mastrian,S.D., McCloskey,J.C.,
McDowell,J., Pearson,R., Snyder,B., Stantripop,S., Thomas,P.J.,
Tiongson,E.E., Touchman,J.W., Tsurgeon,C., Vogt,J.L., Walker,M.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NIH-MGC Project URL: http://mgc.nc1.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (17-NOV-2000) National Institutes of Heigene Collection (MGC), Cancer Genomics Office, Nationalitute, 31 Center Drive, Room 11A03, Bethesda,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhang, L.-H. and Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Web site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaithersburg, Maryland;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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/translation="mkGWGWIALLLGALLGTAWARRSQDLHCGACRALVDELEWEIAQ
VDPKKTIQMGSERINPDGSQSVVEVTVTVPPNKVAHSGEG"
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                                                                    /product="transmembrane protein
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                                                                                                                                                                                                                /tissue_type="Eye, retinoblastoma"
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/lab_host="DH10B-R"
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/db_xref="taxon:9606"
                                                                                                                                            /codon_start=1
                                                                                                                                                                                        /note="Vector:
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                                                       GGAGCCAAGATCTACACTGTGGAGGCTTGCAGGGCTCTGGTGGATGAATTAGAGTGGGAAA 481
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                     GCAGCCAGTCAGTTGTGGAGGTACCTTATGC 572
                                                                                      GGAGCCAGGATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAA
                                                                                                                                              AAGGCTGGGGTTGGCTAGCCCTACTTTTGGGGGTCCTGCTGGGAACTGCCTGGGCTCGAA
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                                                                                                                                                                                                                                                                    CCCGTGTGTGGCAGGCGCGAAGCGCTCTGGAGAATCCCGGACAGCCCTGCTCCCTGCAG
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                                          TTGCCCAGGTGGACCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCAGATG
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LOCUS RESULT 10 AC109891 SOURCE VERSION .ACCESSION REFERENCE KEYWORDS AUTHORS ORGANISM Barbaria, J., Benton, J., Binmage, K., Blankenburg, K., Bonnin, D., Binmage, K., Blankenburg, K., Bonnin, D., Bouck, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bulkerburg, K., Bonnin, D., Bulkey, C., Burkett, C., Burrell, K.L., Byrd, N.C., C., Carron, T.F., Carter, M., Cavazos, S. R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S. R., David, R., Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D. A., Davila, M.L., Davis, C., Den, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Douthwaite, K. J., Draper, H., Dugan-Rocha, S., Durbin, K.J., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Garlis, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J.H., Gueara, W., Gunaratne, P., Hale, S., Hamilton, K., Harris, C., Harris, K., Hatt, M., Havlak, P., Hawes, A., Hernandez, J., Homsi, F., Howard, S., Huber, J., Hulloway, C., Hollins, B., Homsi, F., Howard, S., Huber, J., Jolivet, S., Joudah, S., Karlsson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Karlsson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Muzny,D.M., Adams,C., Adio-Oduola,B., Ali-osman,F.R., Alabrooks,S.L., Amaratunge,H.C., Are,J.R., Ayele,M., Eukaryota; Metazoa; Mammalia; Eutheria; AC109891.3 GI:21738196 HTG; HTGS_PHASE1. AC109891 Rattus ***, 47 unordered pieces AC109891 Rattus. (bases 1 to 101666) norvegicus rat. pieces. Chordata; Rodentia; 101666 bp DI ne CH230-319E6, Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; DNA * * * linear SEQUENCING HTG 13-JUL-2002 IN PROGRESS Banks,T., Allen,C.,

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Kratovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L.C., Lewis, L., Li, Z., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Loulseged, H., Lozado, R.J., Lu, X., Lucier, A., Lucier, R., Luna, R., Ma, J., Maheshwari, M., Mapua, P., Martin, R., Martindale, A., Martinez, E., Massey, E., Mawhiney, E., McLeod, M.P., Meador, M., Mei, G., Metzker, M., Miner, G., Mitchell, T., Mohabbat, K., Morgan, M., Morris, S., Miner, G., Mitchell, T., Mohabbat, K., Morgan, M., Morris, S., Moser, M., Neal, D., Newtson, N., Nguyen, A., Nguyen, N., Nguyen, Nguyen, Nguyen, N., Nguyen, N., Nguyen, N., Nguyen, N., Nguyen, Nguy
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Direct Submission
Submitted (08-FEB-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 101666)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Baylor Plaza, Houston, TX //UJU, USA
On Jul 12, 2002 this sequence version replaced g1:18860222
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                                                                                                                                                                                                                                                                                                                                                       NOTE: Estimated insert size may differ from sequence length (see http://www.bgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 47 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
2 (bases 1
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Center clone name: CH230-319E6
Sequencing vector: Plasmid;
Chemistry: Dye-terminator
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Assembly program: Phrap; version 0.990329
Consensus quality: 60229 bases at least Q40
Consensus quality: 63959 bases at least Q30
Consensus quality: 66730 bases at least Q30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center: Baylor College of Medicine
Center code: BCM
Web site: http://www.hgsc.bcm.tmc.o
                                 1423: contig of 1523: gap of u 2972: contig of 3072: gap of u 4717: contig of 6632: contig of 6632: gap of 16732: gap of 18040: contig of 8140: gap of 10043: contig of 10143: gap of 10
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35519: contig

35619: gap of u

37677: contig

37777: gap of u

37777: gap of u

38936: gap of u

40273: contig

40373: gap of u

41906: contig

42006: gap of u

44506: gap of u

44606: gap of u

4606: gap of u

51430: contig

49226: contig

49226: gap of u

51433: gap of u
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f unknown
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g unknown
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g unknown
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f unknown
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                                                                                             Submitted (14-SEP-1999) Biomolecular Informatics, Inc., 1201 Eastlake Ave. East, Seattle, WA 98102,
                                                                                                                                                       Sheppard, P., Jelinek, L., O'Hara, P.
                                                                                                                                   Direct Submission
                                                                                                                                                                                                           Unpublished
                                                                                                                                                                                                                                                                    Sheppard, P., Jelinek, L.,
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/organism="Rattus norvegicus"
/db_xref="taxon:10116"
/clone="CH230-319E6"
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272 CAAAGTGAGAGTCCGGCTGCTTTCCAGAGCCTGGGCCACGGCGGCGGCGGCGTGGGAGCAGA 331
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                               Patent: WO 0190154-A 228 29-NOV-2001; CORIXA CORPORATION (US)
                                                                                                                                                                                                                                                                                                                                                                                                     Compositions and methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xu,J., Mitcham,J.L., Harlocker,S.L.,
Lodes,M.J., Algate,P.A., Fling,S.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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//Codon_start=1
                                                                                                                              /organism="Homo sapiens"
/db_xref="taxon:9606"
142 c 152 g 11
                                                                                                                                                                                                                                                             Location/Qualifiers
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/map="12q15"
/clone="IMAGE:29675"
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   20.7%;
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Pred. No. 7e-
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AC025574/c
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ORS
Alsbrooks, S. L., Amaratunge, H. C., Are, J. R., Ayele, M., Banks, T., Allen, C., Are, J.R., Ayele, M., Banks, T., Barbarla, J., Benton, J., Bimage, K., Blankenburg, K., Bonlin, D., Bouck, J., Boyle, S., Bileva, M., Brown, E., Brown, M., Bryant, N.P., Bouck, J., Boyle, S. Brieva, M., Brown, E., Brown, M., Bryant, N.P., Buks, C., Burch, P., Burkett, C., Burrell, K.L., Byd, N.C., Conn, T.F., Carter, M., Cavazos, S.R., Chacko, J., Chavez, D., Chen, R., Chen, R., Chen, R., Chowdhry, I., Christopoulos, C., Chen, R., Chen, R., Chowdhry, I., Christopoulos, C., Chen, R., Chen, R., L., Dathorne, S.R., David, R., L., David, R., Garrell, J.H., Glevara, W., Gunaratne, P., Hale, S., Hamilton, K., Garrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Hamilton, K., Harris, C., Harris, C., Harris, C., Harris, R., Havidk, P., Hawes, A., Hernandez, J., Hollyk, S., Hume, J., Joudah, S., Karlson, E., Kelly, S., Khan, U., King, L., Rorvah, J., Kovar, C., Kratovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L.C., Lewis, L.C., Liu, J., Liu, W., Loulseged, H., Massey, E., Mawhiney, E., McLeod, M.P., Meador, M., Martinez, E., Miner, S., Michell, T., Mohabbat, K., Morgan, M., Morris, S., Netzer, M., Mohabat, K., Morgan, M., Morris, S., Miner, S., Perimus, E., Pull, L., Oulles, M., Ren, Y., Scherer, S., Scott, G., Shen, H., Shooshtari, N., Sisson, I., Ferez, L., Sparks, A., Stanley, H., Stone, H., Shoop, H., Stone, H., Shoop, H., Stone, H., Shoop, H., Stone, H
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1 (bases 1 to 155023)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
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HTG; HTGS_PHASE1; HTGS_D
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Direct Sub
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Sutton, A., Svatek, A., Tabor, P., Tamerisa, R., Tang, H., Usmani, K., Vasquez, L., Vera, V., Villalon, D., Vinsons, N., Thomas, S., Wang, S., Ward-Moore, S., Warren, R., Washington, C., Watlindens, R., Wang, Q., Williams, G., Williams, A., Wieczyk, R., Wooden, S., Worley, K.C., Wi, Y.F., Zhou, J., Zorrilla, S., Nelson, D., Direct Submission

Direct Submission

Submitted (11-MAR-2000) Human Genome Sequencing Center, Department Baylor Plaza, Houston, TX 77030, USA

Ohases I to 155023)

Worley, K.C.
Direct Submission

Submitted (09-MAY-2002) Human Genome Sequencing Center, Department Baylor Plaza, Houston, TX 77030, USA

On May 3, 2002 this sequence version replaced gi:20335511.

Center Eaylor College of Medicine, One Medicine, One One Sequencing Center, Department Baylor Plaza, Houston, TX 77030, USA

On May 3, 2002 this sequence version replaced gi:20335511.

Center Code: BCM

Center Code: BCM

Center Code: BCM

Center Clone name: RP11-348M3

Sequencing vector: M13;
Center Clone name: RP11-348M3

Sequencing vector: M13;
Center Clone name: RP11-348M3

Sequencing vector: M13;
Consensus quality: 141522 bases at least 030

Consensus quality: 14797 bases at least 030
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51104: 51204: 58306: 68406: 109481: 109581: gap of contig gap of contig gap of gap of contig contig gap of contig contig gap of g of 8741 bp in 1 f unknown length g of 17102 bp in unknown of 7028 of 6977 of 4464 f unknown
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           Adams, C. Adins, C., Adio-Oduola, B., Ali-osman, F.R., Allen, C., Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Ayele, M., Banks, T., Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Bouke, J., Bowle, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bouke, J., Bowle, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bouke, J., Borne, P., Burkett, C., Burrell, K.L., Byrd, N.C., Carron, T. B., Carter, M., Cavazos, S.R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, Z., Christopoulos, C., Chen, J., Christo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGACCGAATGAAGGAGTACGGGGAACAGATTGACCCTTCTACCCACCGCAAGAACTACGT 674
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SEQUENCE, 5 unordered pieces.
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Peters, L., Pickens, R., Primus, E., Pu, L.L., Quiles, M., Ren, Y., R. Raves, M., Rojas, A., Rojubokan, I., Rolfe, M., Raiz, S., Savery, G., Scherer, S., Scott, G., Shen, H., Shooshtari, M., Sisson, I., Sodergren, E., Scott, G., Shen, H., Shooshtari, M., Sisson, I., Sodergren, E., Sonaike, T., Sparks, A., Stanley, H., Stone, H., Shoshtari, M., Sisson, E., Tang, H., Strone, H., Shoshtari, M., Sisson, I., Tang, H., Stone, H., Tang, H., Strone, H., Tang, H., Tang, S., Waltington, S., Wa
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** NOTE: Estimated insert size may differ from sequence length

(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

**NOTE: This is a 'working draft' sequence. It currently

**consists of 5 contigs. The true order of the pieces

**is not known and their order in this sequence record is

**runs of N, but the exact sizes of the gaps are unknown.

**This record will be updated with the finished sequence

**as soon as it is available and the accession number will

**be preserved.

**2894 293: contig of 2893 bp in length

**6687 6786: gap of unknown length

**6687 6786: gap of unknown length

**17252 17351: gap of unknown length

**17352 85894: contig of 3693 bp in length

**85995 182350: contig of 68543 bp in length

**85995 182350: contig of 68543 bp in length

**85995 182350: contig of 68543 bp in length

**85995 182350: contig of 96356 bp in length

**85995 182350: contig of 96356 bp in length

**100-granism="Homo sapiens"

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NT 46453 a 45416 c 43855 g 46174 t 452 others
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ALEDTONS, S. L., Amazatunge, H.C., Are, J.R., Ayele, M., Banks, T., Barbarla, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Bunay, C., Bourch, P., Burkett, C., Burrell, K.L., Byrd, N.C., Carter, M., Carvasos, S.R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A., Delancy, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Barnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Falla, T., Ferraguto, D., Edwards, C.C., Elhaj, C., Escotto, M., Falla, T., Ferraguto, D., Edwards, C.C., Elhaj, C., Escotto, M., Garrell, J.H., Guevera, W., Gurneratne, P., Hales, S., Hamilton, K., Harris, C., Harris, K., Harris, K., Garner, T., Garza, M., Gill, R., Harris, C., Harris, K., Harris, K., Hulyk, S., Hume, J., Jackson, L.E., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Kratvson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Li, J., Lichtarge, O., Lieu, C., Lieu, C., Liu, J., Liu, W., Loulseged, H., Manes, M., Mapua, P., Martin, R., Martindale, A., Martinez, E., Miner, G., Miner, S., Michell, T., Wohabbat, K., Morgan, M., Morris, S., Netzes, M., Rojas, A., Rojubokan, I., Netzeon, N., Nguyen, N., McKerson, E., Nwokenkwo, S., Oguh, M., Okwuonu, G., Peters, L., Pickens, R., Pilmus, E., Patt, L., Oulles, M., Ren, Y., Scherer, S., Scott, G., Shen, H., Shooshtari, N., Stanley, H., Stone, H., Tansey, J., Taylor, C., Taylor, T., Telfrod, B., Thomas, N., Thomas, S., Warren, R., Warren, R., Martino, B., Thomas, N., Thomas, S., Warren, R., Warren, R., Washington, C., Watlington, S., Warren, R., Warren, R., Washington, C., Watlington, S., Warren, R., Warren, R., Washington, C., Watlington, S., Warren, R., Warren, R., Wang, Q., Wang, S., Warren, R., Warren, R., Warren, R., Wang, Q., Wang, S., Warren, R., Warren, R., Wallalon, D., Vinson, R., Wang, Q., Wang, S., Warren, R., Warren, R., Walland, D., Watlington, S., Wang, Q., Wang, S., Warren, R., Walland, D.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 184762)
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Homo sapiens chromosome 12 clone RP11-183H16, WORKING DRAFT
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Similarity 90.0%;
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Pred. No. 1.3e-36;
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47425
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NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.h. NOTE: This is a 'working draft' sequence. It currently consists of 9 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (24-AUG-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor plaza, Huston, TX 77030, USA
On Aug 4, 2002 this sequence version replaced g1:22094227.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (15-FEB-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Worley, K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequencing vector: Plasmid;
Sequencing vector: Plasmid;
Sequencing vector: M13;
Chemistry: Dye-primer Bodipy: 2% of reads
Chemistry: Dye-terminator Big Dye: 98% of reads
Chemistry: Dye-terminator Big Dye: 98% of reads
Consensus quality: 188845 bases at least Q40
Consensus quality: 188845 bases at least Q20
Consensus quality: 188447 bases at least Q20
Satimated insert size: 159026; sum-of-contigs estimation
Quality coverage: 8x in Q20 bases; sum-of-contigs estimation
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Center project name: HAFC
Center clone name: RP11-183H16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Drafting Center Code: BCM
Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 184762)
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/organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                             Location
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                                                                                          120123: gap of unknown
184762: contig of 64639
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gap of unknown length
contig of 2030 bp in length
gap of unknown length
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Zhou,J., Zorrilla,S., Nelson,D.,
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                                                                                                                                                                                                                               g of 19119 bp
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g of 35738 bp in
f unknown length
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of 5802 bp in
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clone="RP11-183H16" 44751 c 45101 c

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812 others

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Search completed: March 30, 2003, 20:29:33 Job time: 3455.45 secs
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Run

592 546 1085 792 792 649 649 649 595 415 415 2532 2532 2724

Human secreted pro
Human secretory pe
Human Zsig9 gene.
Human breast cance
Zsig9 expressed se
Expressed Sequence

Human breast cance

AAZ08293 AAX997884 AAA43525 ABK36007 AAZ386007 AAZ382130 AAX797836 AAZ105968 AAZ105968 AAZ105968 AAZ105968 AAZ06968 AAZ06971 AAZ06982 AAX06983 AAX06971 AAZ068971

Human secreted pro Human transmembran WO9901020 Seq ID 3

AAL25628 AAL26689 ABA09488 AAX39549 ABA07341 AAS32768

Human ovarian tumo
Human breast cance
Human breast cance
Human secreted pro
Human secreted pro
Human pancreatic c
Human genomic DNA

ABA07340 AAS32767 AAI80994

Human

Human secreted pro Gene #1335 used to Lung cancer relate

Human pancreatic c Human genomic DNA Human polynucleoti

ABV48839 ABV33270 ABV42193

ALIGNMENTS

ВP

AAC24962 ABN94837 ABL65469 ABN55235 ABN94836 ABL65468 ABN39205

Mouse spliced tran Gene #1334 used to Lung cancer relate Human spliced tran

Human prostate exp Human prostate exp

Human secreted pro
Human secreted exp
Mouse secreted exp
cDNA sequence #398

zsig9 gene secreted pr

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Result
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Maximum
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Perfect score:
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676.4
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606.6
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599.6
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       100.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1069 BP; 276 A; 259 C;
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      GGCAGCCAGTCAGTTGTGGAGGTACCTTATGCCCGCTCAGAGGCCCCACCTCACAGAGTTG
                                                                                                                       CCCTGAACCTGGCGGGAGCCGGAGCGCTCTGGAGAAGCCGGGACAGCCCCGTTTTTCCCA
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es to secretory protein-9 (Zsig9) -
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16-JAN-2000

16-FEB-2000

18-FEB-2000

18-FEB-2000
                                                                                                                                                                                                                                              breast; prostate; cervical; tumour necrosis factor-alpha; TNF-alpha; cartilage; ear; proliferation; glucose; free fatty acid; skeletal muscle; adipocyte; A-peptide; factor VIIA; gene therapy; ss.
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                                                                                                                                                                                                                                                                                                                                        PRO polypeptides. The PRO polypeptides are useful to detect other CC PRO polypeptides, to link bioactive molecules to cells expressing PRO polypeptides, to modulate biological activities of cells expressing CC PRO polypeptides, and to detect the presence of mammalian lung, colon, CC breast, prostate, rectal, cervical or liver tumours by comparing PRO CC polypeptide expression in a cell sample to that in a control sample. Some of the 275 sequences are also useful to stimulate the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, the CC come of the 275 sequences are also useful to stimulate the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, the CC consideration or differentiation of chondrocytes, the proliferation or composition or differentiation of inner ear utricular supporting cells or CC cartilage, the proliferation of inner ear utricular supporting cells or T-lymphocytes, the release of a cytokine from peripheral blood CC monocytes (PBMCs), or the proliferation of endothelial cells. Some of the PRO polypeptides and modulate glucose or free fatty acid uptake by skeletal muscle cells or by adipocytes; or inhibit binding of A-peptide consecutes involved in binding interactions. The polypuclectides encoding CC molecules involved an binding interactions. The polypuclectides encoding CC pRO polypeptides can be used to generate probes, antisense RNA/DNA, CC transgenic or knock out animals and can be used in gene therapy.
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Best Local Similarity
Matches 850; Conserv
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other PRO polypeptides, link bloactive molecules to cells expressin
PRO polypeptides, and detect the presence of mammalian tumours e.g.
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2000WO-USO7377.

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2000WO-USO8439.

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2000WO-US14042.

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                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                           (first
                                                                                                                                                                          protein gene 2
                                                       endocrine; gastrointestinal;
                                                                                                                                                                                                                                                                     DNA;
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                                                                                                                                                                              clone H2MBB56
                                                        diagnosis;
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                                                                                                                                                                                                                                                                                                                                                                                           CC rhe invention relates to nucleic acid sequences (AAX22111 to AAX22134)
CC encoding human secreted proteins (AAY01135 to AAXV01158). The secreted cc protein gene sequences are deposited with the ATCC under deposit number ATCC 209118. Host cells comprising recombinant vectors containing the nucleic acid sequences are used for the recombinant production of the cc secreted proteins. The polynucleotide and amino acid sequences are useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. Pathological conditions can be also diagnosed by determining the amount of the new polypuptides in a cc sample or by determining the presence of mutations in the new cp plynucleotides. Specific uses are described for each of the polynucleotides, based on which tissues they are most highly expressed in and include developmental abnormalities and foetal deficiencies, cancer, tumours, developmental abnormalities and cognitive disorders, cschizophrenia, immunological disorders, immune deficiency diseases (AIDS), mood disorders, neural disorders, setheral disorders, arthritis, asthma, constended on steoporosis, metabolic disorders, cardiovascular disorders, endocrine constending a human secreted protein (see descriptor line for gene number and clone identification).
                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-SEP-1997;
01-JUL-1997;
01-JUL-1997;
12-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated human genes and the secreted polypeptides they encode useful for diagnosis and treatment of e.g. cancers, neurological disorders, immune diseases, immune deficiency diseases or blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carter
                                                                                                                                                                                                                                                                                                                                                        Sequence 1180 BP;
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DB; AAY01136, AJ
                           TAGGGTTGGGACCCACAGAAAACAAAGTGAGAGTCCGGCTGCTTTCCAGAGCCTGGGCCA
                                                                       GCTTAGGTGCCTAGTTAAGTGCGGGAAGCTGGGCCAGGCGGTCACTGGACCTGAACC
                                                                                                                                                                                                                                    GACCGGGGTCCTTGCTGTTCGGGAGCCTCTCCT-AAGCTGCCTGTTCGCGCGARAKTTTG
                                                       TGTGGCAGGCGGAAGCTCTGGAGAATCCCGGACAGCCCTGCTCCCTGCAGCCAGGTG-
                                                                                                                GCTTAGGTACCAGTTAGCGTCAGGGGAGCTGGGTCAGGCGGTCGCCGG-GACACCCCGTG
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                                                                                                                                                                                                                                                                                                                                                                                     clone identification).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENOME SCI INC
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97US-0051381.
97US-0051480.
97US-0058598.
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                                                                                                                                                                                                                                                                                                                                                      304 C; 363 G;
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                                                                                                                                                                                                                                                                                          Score 676.4; DB 20;
Pred. No. 9.8e-166;
2; Mismatches 153;
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RRESULT 5
AAZ38327
ID AAZ38
XX AAZ8
AC AAZ3
XX O9-F
DT 09-F
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                                                                                                                                                                                                                                          assay reagent; diagnostic marker; primer;
agonist; antagonist; ligand; therapeutic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1005
                            W09955862-A2
                                                                                                                                                                                                                                                                                        HP10390; transmembrane domain; stomach cancer cell; antibody;
                                                                                                                                                                                                                                                                                                                                                                                              09-FEB-2000
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                                                                       transmembrane
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                                                                                                                                                                                                                                                                                                                                           HP10390
                                                                                                                                                                                                                                               probe; antisense;
ds.
                                                                    protein HP10390'
                                                                                                                                                                                                                                                                 gene therapy;
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         TGGAGAATCCAGTGAACTAGACTTACAGGGCATCCGAATTGACTCAGATATCAGCGGCAC
                                                                                                                                                                                 GCTCTGGTGGATGAACTAGAATGGGAAATTGCCCAGGTGGACCCCAAGAAGACCATTCA
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PROTEGENE IN
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19-0CT-2000;

19-0CT-2000;
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                                                  Identifying modulators of a cancer-related gene to screen agents if preventing or treating cancer comprises detecting a difference in expression of cancer-linked genes in the presence or absence of tecompounds -
                                                compounds
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T lymphocyte;
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2000US-239297P.

2000US-239605P.

2000US-239805P.

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Claim

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The invention relates to modulators of a cancer-related genes. Also CC described are: (1) processes for identifying an anti-neoplastic agents CC compositing contacting a cell exhibiting neoplastic activity with a CC compound first identified as a cancer related gene modulator, and CC determining the cancerous state of a cell by determining an increase in the neoplastic activity. (2) a process for CC determining the cancerous state of a cell by determining an increase in CC the level of expression of at least one gene, where an elevated CC expression relative to a known non-cancerous cell indicates a cancerous state or potentially cancerous state. The anti-neoplastic agent is CC useful for treating cancer or for protecting an animal against cancer. CC The immunogenic composition is also useful for treating cancer in an CC animal, where the composition elicits the production of cytotoxic TC lymphocytes specific for the immunogenic composition. Preferably, the CC animal is a human. The cancer-linked genes and polypeptides are also CC useful as targets for cancer therapy or chemotherapy. The present CC sequence represents a cancer-linked gene located on chromosome 12, which encodes transmembrane protein 4.
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CCATGCCCTGCACATATCGCATGATGAGCTATGAACCACTGGAGCAGCCCAC----
                                                                                                                                                                               CCTCAAGTTTGCGTGTGAGAGCATTGTGGAAGAATACGAGGATGAGCTTATCGAATTCTT
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                                       TTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGCAGTAAGCGAACAGATCTTTGTGA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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0; Mismatches
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                                                                                    Query Match
Best Local S
                                                                            Matches
                                                                                                                                        The specification describes a method of antibody preparation. The method comprises inoculating an animal with a vector expressing a fusion protein having an antigen protein fused to the C-terminal side (extracellular) of a transmembrane domain protein (the N-terminal side of which is intracellular), and then isolating and purifying the antibody from the animal. The antibodies can be used as drugs, veccines, diagnostic reagents and laboratory reagents. The present sequence encodes a polypeptide, designated HP10390, which we used in the course of the invention.
                                                                                                                                                                                                                                                                             Antibody preparation by inoculation of an animal with a vector expressing a fusion protein of an antigen on the C-terminal side transmembrane domain for use as drugs, diagnostic reagents and laboratory reagents
                                                                                                                                                                                                                                                                                                                                                                                                             24-JUL-2000; 2000JP-0222743
24-AUG-2000; 2000JP-0254407
                                                                                                                       Sequence
                                                                                                                                                                                                                                                      Example; Page 33-35; 45pp; Japanese.
                                                                                                                                                                                                                                                                                                                                    P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                  Kato S,
                                                                                                                                                                                                                                                                                                                                                                                                                                             24-JUL-2001; 2001WO-JP06371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200208416-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Antibody; antigen; transmembrane domain protein; HP10390; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nucleotide sequence of human polypeptide HP10390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGTGAGAGTCCGGCTTGCTTTCCAGAGCCTGGGCCACGGCGGCGGCGGTGGGAGCAGAG
                                                                                                                                                                                                                                                                                                                                  2002-195877/25.
DB; ABB09717.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTACTGAAATTAACTGAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTATGGAAATGAACTGAAAAAA 1013
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                                                                                     Similarity
                                                                                                                      814 BP;
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                                                                            Conservative
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145.693
/*tag= a
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                                                                                                                      210 A; 194 C;
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                                                                           Pred. No. 1.2
0; Mismatches
                                                                                     Score 606.6; DB 24; Length Pred. No. 1.2e-147;
                                                                                                                      241 G; 169
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RESULT 8
ABK09772
ID ABK0
XX ABK0
XX ABK0
XX ABK0
XX Huma
XX Huma
XX Huma
KW Gene
XX Homo
XX WO20
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24-MAY-2000;
                                                                                              Human ovarian
               23-MAY-2001;
                                           WO200190154-A2
                                                          Homo sapiens
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                                                                        1; ovarian tumour protein; cancer; cytostatic; immunostimulant;
therapy; CD4+ T cell; CD8+ T cell; PCR primer.
                                                                                                                                                                               TTTATGGAAATGAACTGAAAAAA 1013
|||| ||||| ||||||||||
TTTACTGAAATTAACTGAAAAAA 797
                                                                                                                                                                                                                                                                      CTCCAGAGAGGCTGACAACGTTAAAGACAAACTTTGCAGTAAGCGGACAGATCTATGTGA
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                                                                                                                                                                                                             GGCTTGATGGATCACCCCCAGGAGGGGAAAATGGTGGCAATGCCTTTTATATTATTATGTT
                                                                                                                                                                                                                    AACGTGATGGAACACCCCCAGGAGGGGGAAGATGGCATTGCCTTT--TATATTACGTT
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                                                                                                                                           standard;
                                                                                                             (first entry)
2000US-207107P
               2001WO-US16895
                                                                                             tumour protein encoding cDNA #305
                                                                                                                                           cDNA;
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WPI;
                                                                                                                                                13-JUN-2000; 2000US-211457P.
21-JUN-2000; 2000US-213673P.
03-AUG-2000; 2000US-223288P.
01-MAR-2001; 2001US-272790P.
                                                                                                                              ž
                                                                                                                          Algate
                                                                                                                                       (CORI-) CORIXA CORP
                                                                                                                 2002-097641/13.
                                                                                                                         Mitcham JL, Ha
PA, Fling SP,
                                                                                                                          Harlocker SL,
P, Mannion J,
                                                                                                                          Dillon
Benson
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                                                                                                                          Secrist
Carter D
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New isolated polynucleotide encoding polypeptide comprising ovarian tumour protein, useful for detection, diagnosis and human ovarian cancer portion ရှင်

Claim 1; Page 253-254; 285pp; English

The invention relates to an isolated polynucleotide encoding a polypeptide comprising a portion of an ovarian tumour protein. The sequences of the invention are useful for stimulating an immune response and for treating ovarian cancer in a patient. An antigen presenting cell that expresses the sequences is useful for treating ovarian cancer by cincubating CD4+ and/or CD8+ T cells isolated from a patient. The T cells can then be proliferated and administered to the patient to inhibit the can then be proliferated and administered to the patient to inhibit the component of cancer. The DNA sequences are useful as probes or primers for nucleic acid hybridisation, to direct expression of a polypeptide in appropriate host cells. Detecting the presence of a cancer in a patient cappropriate host cells. Detecting the presence of a cancer in a patient conjugical sample with an agent that binds to the protein, detecting the amount of protein that binds to the agent, comparing the amount of protein that binds to the agent, comparing the amount of cancer. Sequences ABK09464-ABK09802 represent PCR primers and cDNA consideration of a protein cancer in the agent that binds to the invention.

Sequence 814 BP; 210 A; 194 C; 241 G; 169 T; 0 other;

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                 Q
                                      Query Match
Best Local S
Matches 701
                  213 AGAAGCCGGGACAGCCCCGTTTTTCCCCAGCCAGCTGCTAGGGTTGGGACCCACAGAAAAC
  \vdash
Similarity
                                       Conservative
                                              56.7%;
                                      0;
                                              Score 606.6; DB 24; Length 814; Pred. No. 1.2e-147;
                                       Mismatches
                                      Indels
                                     8
                                    Gaps
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Qy	В	Qy
333 GTGGAGCGACCCTGTTACACTAAAGATGAAAGGCTGGGGTTGGCTAGCCCTACTTTTGGG 392	60 AAAGTGAGAGTCCAGCGGTCTTCCAGCGCTTGGGCCACGGCGGCCCTGGGAGCAGAG 119	273 AAAGTGAGAGTCCGGCTTGCTTTCCAGAGCCTGGGCACGGCGGCCGGC
92	19	32

ČAG G	180 GCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAG 239	_
GAGCTTGCAG	393 GGTCCTGCGGGAACTGCCTGGGCTCGAAGGAGCCAAGATCTACACTGTGGAGCTTGCAG 452	w
GCTTCTGGG		щ

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240	453
240 GGCTCTGGTGGATGAACTAGAATGGGGAAATTGCCCCAGGTGGACCCCAAGAAGACCATTCA 299	453 GGCTCTGGATGAATTAGAGTGGGAAATTGCCCGGGTGGACCCCAAGAAGACCATTCA 512
9	ผ

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359	300 GATGGGATCTTTCCGGATCAATCCAGATGGCAGCCAGTCAGT	멍
572	513 GATGGGATCCTTCCGAATCAATCCAGATGGCAGCCAGTCAGT	Ş

479	420 TGGGGAACAGATTGATCCTTCCACCCATCGCAAGAACTACGTGTAGTGGGCCGGAA 479	Db 42	_
692	633 CGGGGAACAGATTGACCCTTCTACCCACCGCAAGAACTACGTACG	Ωу 63	_
419	360 CCGCTCAGAGGCCCACCTCACAGAGCTGCTGGAGGAGATATGTGACCGGATGAAGGAGTA 419	Db 36	_
632	573 CCGCTCAGAGGCCCACCTCACAGAGTTGCTTGAGGAGGTGTGTGACCGAATGAAGGAGTA 632	Qy 57	_

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RESULT 9
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03-JUL-1997;
03-JUL-1997;
03-JUL-1997;
19-MAY-1998;
19-MAY-1998;
17-JUN-1998;
                          Claim 2; Page 73-74; 85pp; English
                                                                                                                                                                     WPI; 1999-106055/09
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; growth enhancer;
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The present DNA sequence is a gene encoding the variant of the secretory protein 9, 2sig9 that axises due to alternative splicing, allelic variation or silent mutations that result in amino acid changes. This sequence is mapped to the human chromosome 12q15 region. It is overexpressed in tumours. Antagonists, antibodies and antisense nucleotides to 2sig9 are useful for detecting and treating tumours. The antagonist may be an antibody or receptor to zsig9 and it may be radio-labelled or fused to a polypeptide toxin. It can be used for down regulating the overexpression of zsig9. The gene sequence can be used as nucleic acid probes to detect RNA encoding zsig9. The Zsig9 sequence facilitates improved diagnostic and therapeutic techniques for detecting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    overexpression; antagonist; antibody; antisense nucleotide; tumour; treatment; receptor; radio-label; fusion; polypeptide toxin; technique; down-regulation; probe; diagnostic; therapeutic; cancer; brain; liver; detection; stomach; lymphoma; alternative splicing; allelic wards silent mutation; ds.
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87.7%;
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.1e-145;
les 86;
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diagnostic, forth
also include d
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09-FEB-1998;
13-APR-1998;
10-AUG-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Extended cDNAs encoding secreted proteins
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13-NOV-1997;
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hes 722;
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TGCCCGCTCAGAGGCCCACCTCACAGAGCTGCTGGAGGAGATATGTGACCGGATGAAGGA
                   TGCCCGCTCAGAGGCCCACCTCACAGAGTTGCTTGAGGAGGTGTGTGACCGAATGAAGGA
                                          AGGGCTCTGGTGGATGAAACTAGAATGGGGAAATTGCCCCAGGTGGACCCCAAGAAGACCAT
                                                                                                  AGGGCTCTGGTGGATG-AATTAGAGTGGGAAATTGCCCGCGTGGACCCCAAGAAGACCCAT
                                                                                                                                 GGGCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCAGGATCTCCACTGTGGAGCATGC
                                                                                                                                               GGGGTCCTGCTGGGAACTGCCTGGGCTCGAAGGAGCCAAGATCTACACTGTGGAGCTTGC
                                                                                                                                                                                        AGGTGGAGCGACCCTGTTACACTAAAGATGAAAGGCTGGGGTTGGCTAGCCCTACTTTTG
                                                                                                                                                                                                                                                                               GGAGAAGCCGGGACAGCCCGCTTTTTCCCAGCCAGCTGCTAGGGTTTGGGACCCACAGAAA 270
                                                                                                                                                                           CCAAAGTGAGAGTCCAGCGGTCTTCCAGCGCTTGGGCCACGGCGGCGGCGCCTGGGAGCAG
                                                                                                                                                                                                                                   ACAAAGTGAGAGTCCGGCTGCTTTCCAGAGCCTGGGCCACGGCGGCGGCGGCCGTGGGAGCAG
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97US-0066677.
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98US-0074121.
98US-0081563.
98US-0096116.
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17-DEC-1997;
09-FEB-1998;
13-APR-1998;
10-AUG-1998;
                                                   Bougueleret L,
                                                                                                                                                                   Homo
                                                                 (GEST )
                                                                                                                                                                              Secreted protein; diagnostic; gene
                                                                                                                           13-NOV-1998;
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                                                                                                                                                                                                                                           AAX97884 standard; cDNA;
                                                                                                                                                                                                   Human secreted
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DB; AAY36200.
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                                                                           98US-0099273.
97US-0066677.
97US-0069957.
98US-0074121.
98US-0081563.
98US-0096116.
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                                                                                                                                                                                                 protein encoding
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Claim 1; Page 272; 307pp;

English

Extended

cDNAs encoding secreted proteins

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AA 714
                                       CTTATGCCCGCTCAGAGGCCCACCTCACAGAGTTGCTTGAGGAGGTGTGTGACCGAATGA
                                                                                                                                                                                                                                                                                                                                                                       GCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGAAGAATACGAGGATGAGCTTATCG
                                                                                                                                                                                                                                                           GCCGGAATGGAGAATCCAGTGAACTAGACTTACAGGGCATCCGAATTGACTCAGATATCA
                                                                                                                                                                                                                                                                                      AGCAGAGGTGGAGCGACCCTGTTACACTAAAGATGAAAGGCTGGGGTTGGCCTAGCCCTAC
                                                                                        TACACCAAACGTGATGGAACACCCCCAGGAGGGGAAGATGGCAGCATTGCCTTT--TATA 983
                                                                                                                                                                                                        GCGGCACCCTCAAGTTTGCGTGTGGGAGCATTGTGGAGGAATACGAGGATGAACTCATTG
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639; Conserv
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RESULT 13 AAA43525

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AAA43525;

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329 AGAGGTGGAGCGACCCTGTTACACTAAAGATGAAAGGCTGGGGTTGGCTAG-CCCTACTT 387

Best Local Sin Matches 550; Query Match

Similarity

48.08; 97.78;

Score 513.4; Pred. No. 1.

.7e-1

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Gaps

Conservative

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Sequence 592 BP; 159 A; 139 C; 167 G; 123 T; 4 other;

AAA43525 standard; cDNA; 592

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CC AAA43426 to AAA45925 represent specifically claimed secreted expressed CC sequence tags (SESTs), isolated from human, mouse, chicken and rat CC tissue sources. The SESTs can have a range of activities depending on the tissues they were isolated from. The activities include: CC chemotactic; proliferative; immunomodulatory; haematopoletic; cc chemotactic; antipacterial; antifungal; antiviral; antifulfalmmatory; CC cytostatic; antibacterial; antifulcer; osteopathic; neuroprotective; CC antiasthmatic; vulnerary; antiperssant. The sESTs can be used for gene contropic; antiparkinsonian; antipsoriatic; cerebroprotective; CC anticonvulsant; and antidepressant. The sESTs can be used for gene contropic; antiparkinsonian; antipsoriatic; cerebroprotective; CC anticonvulsant; and antidepressant. The sESTs can be used for gene contropic; antipaction of full-length cDNAs and genomic DNA concludes which correspond to the sESTs. Proteins encoded by the sESTs care useful as probes for the contropic selful in assays for determining biological activity and raising cc antibodies. They may be useful for treatment of autoimmune disorders (multiple sclerosis, insulin dependent diabetes), allergic conditions continuity and provided cell deficiencies, wounds, burns, ulcers, costeoporosis, osteoarthritis, central nervous system disorders (Alzheimer's, Parkinson's, Huntington's disease, stroke), coagulation continuity and provided cell deficiencies, wounds, burns, ulcers, coagulation, services, coagulation, services, coagulation, services, coagulation, and content of the present linker variants which are given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; mouse; chicken; rat; secreted expressed sequence tag; SEST; expressed sequence tag; EST; probe; chemotactic; proliferative; immunomodulatory; haematopoietic; chemotactic; proliferative; immunomodulatory; haematopoietic; chemotantic; antibacterial; antifungal; antiviral; antidiabetic; antiasthmatic; vulnerary; antiparkinsonian; antiviral; antidiabetic; neuroprotective; nootropic; antiparkinsonian; antiviral; antidiabetic; multiparkine; outropic; antiparkinsonian; cerebroprotective; anticonvulsant; antidepressant; gene therapy; vaccine; autoimmune disorder; multiple sclerosis; allergic condition; insulin dependent disorder; multiple sclerosis; allergic condition; lnsulin dependent disorder; asthma; myeloid cell deficiency; ulcer; lymphoid cell deficiency; burn; osteoporosis; osteoarthritis; central nervous system disorder; Alzheimer's disease; stroke; Parkinson's disease; Huntington's disease; coagulation disorder; haemophilia; thrombosis; inflammatory disorder; Crohn's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Isolated polynucleotides, and encoded proteins, comprising secreted expressed sequence tags (sESTs), useful for treating various disorders such as autoimmune, infectious, and central nervous system disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 228-229; 803pp; English.
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RESULT 14
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XX O8-M
XX Huma
KW Huma
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                                        Merberg D,
Clark HF,
WPI; 2002-179322/23
                                                                                                                                                                                                                                                                                                                                          Human secreted protein; hyperproliferative disorder; autoimmune disorder immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; allergic condition; neurodegenerative disorder; liver fibrosis; coagulation disorder; gene therapy; antimicrobial; tumour; cancer; hepatotropic; immunosuppressive; antirheumatic; gene
                                                                               Jacobs K,
                                                                                                                                                      06-APR-2000; 2000US-195605P
                                                                                                                                                                                              29-MAR-2001; 2001WO-US10232
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                                                                                                                 (GEMY ) GENETICS INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cDNA sequence #398 encoding novel human secreted protein.
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Treacy M, /
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                                  Lavallie ER,
Agostino MJ,
Howes SH, Re
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                       Collins-Racie LA, Evar
J, Bowman MR, Spaulding
Resnick RJ, Gulukota K,
                 Evans C;
.lding V, Wong GG;
,ta K, Graham JR;
                                                                                                                                                                                                                                                                                                                                                                                                                           disorder;
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Six hundred and twenty three polynucleotides derived from a variety human tissue sources which encode secreted proteins, useful for treating immune deficiencies and disorders such as autoimmune disorders.
                                                                                                                                             disorders
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Claim 1; Page 393pp; English.

The present invention relates to the isolation of novel cDNA sequences which encode human secreted proteins. The cDNA sequences have been code which encode human secreted proteins. The invention also provides consistent of the protein serious constant in the sequences. The invention also provides consistent of the proteins from these polynucleotide sequences. The proteins are useful for identifying compounds that modulate their caching production. The sequences of the invention are consistent of the constant invention are consistent of the constant invention are constant invention and constant invention are constant in the constant invention are constant in the constant invention are also useful in gene therapy. Abk35610-Abk33232 represent constant invention are also useful in gene therapy. Abk35610-Abk33232 represent constant invention are also useful in gene therapy. Abk35610-Abk33232 represent constant invention are also useful in gene therapy. Abk35610-Abk33232 represent constant invention are also useful in gene therapy. Abk35610-Abk33232 represent constant in the cDNA sequences of the invention that encode for novel human constant in the cDNA sequences of the invention that encode for novel human constant in the cDNA sequences of the invention that encode for novel human constant in the cDNA sequences of the invention that encode for novel human constant in the cDNA sequences of the invention that encode for novel human constant in the cDNA sequences of the invention that encode for novel human constant in the cDNA sequences of the invention that encode for novel human constant in the constant in the constant in the cDNA sequences of the invention that encode for novel human constant in the con

Sequence 657 BP; 177 A; 149 C; 185 G; 146 T; 0 other;

밁 Š ₽ S 밁 Q 밁 Qy В Ωy ₽ Š VQ 밁 В Ş В Ş 밁 Ş Matches Query Match 910 481 850 421 790 361 730 301 670 241 610 181 550 121 490 Local 5 370 GGTTGGCTAGCCCTACTTTTGGGGGTCCTGCTGGGAACTGCCTGGGCTCGAAGGAGCCAA 429 61 _ ACTGGAGCAGCCCAC-----ACTGGCTTGATGGATCACCCCCAGGAGGGGAAAATGGTGG ACTGGAGCAAGCAGCCTACACCAAACGTGATGGAACACCCCCAGGAGGGGGAAGATGGCAG AGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCACGATGAGCTATGAATC GAGGATGAACTCATTGAATTCTTTTCCCGAGAGGCTGACAATGTTAAAGACAAACTTTGC GAGGATGAGCTTATCGAATTCTTCTCCAGAGAGGCTGACAACGTTAAAGACAAACTTTGC TACGTACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCGA TCAGTTGTGGAGGTACCTTATGCCCGCTCAGAGGCCCACCTCACAGAGTTGCTTGAGGAG TACGTACGCGTCGTGAGCCGGAATGGAGAATCCAGTGAACTAAGACTTACAGGGCATCCGA ATATGTGACCGGATGAAGGAGTATGGGGAACAGATTGATCCTTCCACCCATCGCAAGAAC GTGTGTGACCGAATGAAGGAGTACGGGGAACAGATTGACCCTTCTACCCACCGCAAGAAC GATCTACACTGTGGAGCTTGCAGGGCTCTGGTGGATGAATTAGAGTGGGGAAATTGCCCGC 489 GATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGGGAAATTGCCCCAC Similarity Conservative 47.18; 88.48; 0, Score 503.2; DB Pred. No. 8e-121; 0; Mismatches 6 68; 24; Indels Length 7; Gaps 969 540 909 480 849 420 360 729 669 180 549 120 789 300 240 609 'n

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CATTGCCTTT--TATATTACGTTTTTATGGAAATGAACTGAAAAAA

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RESULT 15
AAZ38326
ID AAZ38
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                                                                                      Query Match
Best Local Similarity
Matches 500; Conserv
                                                                                                                                                                                     This sequence represents the coding sequence of human cDNA clone HP10390 which encodes a 20 kD protein with one putative transmembrane domain in the N-terminus. The cDNA was isolated from a human stomach cancer cell line cDNA library. The protein has no homology with any known protein. The protein may be used to raise specific antibodies, as assay reagents, as diagnostic tissue markers, for the isolation of cognate receptors, ligands and binding proteins, and as biologically active agents. Nucleotides encoding the protein may be used as primers and probes or antisense molecules, and in gene therapy. Cells transformed with these nucleotides may be used to screen for agonists and antagonists which are potentially useful therapout cally.
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(PROT-)
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                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                        Claim 3; Page 88; 114pp; English.
                                                                                                                                                                                                                                                                                                                                                                                          Human proteins with transmembrane domains, involved in control of cell proliferation and differentiation, useful for treating e.g. cancer or inflammation -
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                            ATGAAAGGCTGGGGTTGGCCGGCCCTGCTTCTGGGGGCCCTGCTGGGGAACCGCCTGGGCT
                                                         ATGAAAGGCTGGGGTTGGCTAGCCCTACTTTTGGGGGTCCTGCTGGGAACTGCCTGGGCT 417
CGAAGGAGCCAAGATCTACACTGTGGAGCTTGCAGGGCTCTGGTGGATGAATTAGAGTGG 477
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                                                                                                                                                                             are potentially useful therapeutically.
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                                                                                      44.2%;
llarity 91.6%;
Conservative
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/product=
/note= "No
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                                                                                                                                                139 A; 126 C; 165 G; 116 T; 0 other;
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                                                                                      Score 472.4; DB 21; Length Pred. No. 7.5e-113; O; Mismatches 46; Indels
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541 GAGCTA 546
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                 GAGCTA 903
                                                                               GTGGAAGAATACGAGGATGAGCTTATCGAATTCTTCTCCAGAGAGGCTGACAACGTTAAA
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                                                                                                                           CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
                                                                                                                                                                    CATCGCAAGAACTACGTACGTGGGGGGGGGAATGGAGAATCCAGTGAACTGGACCTA
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Search completed: March Job time: 261.709 secs 30, 2003, 18:47:39

Sequence Sequence Sequence

US-09-252-329-5
US-09-721-822A-10
US-08-721-822A-10
US-08-195-006-1
US-08-195-006-1
US-08-24-757-1
US-09-206-903A-11
US-09-206-903A-11
US-09-206-935-2
US-09-206-935-3
US-09-206-936-3
US-08-545-196B-10
US-08-545-196B-10
US-08-545-196B-12
US-08-545-196B-12
US-08-545-196B-12

sequence seq

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ALIGNMENTS

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Title:
Perfect score:
Sequence:
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No.
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Maximum DB
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1: /cgn2_6/ptodata/1,

2: /cgn2_6/ptodata/1,

3: /cgn2_6/ptodata/1,

4: /cgn2_6/ptodata/1,

5: /cgn2_6/ptodata/1,

6: /cgn2_6/ptodata/1,
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length: 2000000000
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Match
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Listing first 45 summaries
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BC_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/backfiles1.seq:*
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US-09-202-56-71
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US-09-605-785-110
US-09-322-616A-110
US-09-322-149A-110
US-09-322-149A-110
US-09-322-149A-110
US-09-152-060-41
US-09-152-060-41
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PCT-US95-0425B-4
US-08-341-56B-3
US-09-152-060-7
US-08-341-56B-3
US-09-157-762-1
US-08-341-56B-3
US-09-157-762-1
US-08-368-077-76-1
US-08-888-077-76-1
US-08-888-077-76-4
US-09-1585-982-542
US-09-888-077-84-1
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                                 Sequence 1, Appli Sequence 1, Appli Sequence 5, Appli Sequence 5, Appli Sequence 5, Appli Sequence 5, Appli Sequence 110, App Sequence 100, App Sequence 100, App Sequence 100, App Sequence 1, Appli Sequence 4, Appli Sequence 4, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 1, Appli Sequence 9, Appli Sequence 9, Appli Sequence 9, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 9, Appli Sequence 1, Appli Sequence 1, Appli Sequence 9, Appli Sequence 1, 
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                    Sequence
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US-08-738-349-1
                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/364
FILING DATE:
APPLICATION NUMBER: US 08/112
FILING DATE: 26-AUG-1993
ATTONNEY/AGENT INFORMATION:
NAME: BAIKET, M. P.
REGISTRATION NUMBER: 32,013
REFERENCE/DOCKET NUMBER: 0248
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 3581 base pairs
TYPE: DUCLE: acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
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                                                                                                                                                                                                                                                                                                                                                     ZIP: 20005-3315

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFFWARE: Patentin Release #1.0, Version #1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/738,349
FILING DATE: 25-OCT-1996
CLASSIFICATION: 435
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STRANDEDNESS:
TOPOLOGY: line
MOLECULE TYPE: C
ORIGINAL SOURCE:
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TITLE OF INVENTION: Bone-Related Cadherin-Like Protein
TITLE OF INVENTION: Process for Its Production
NUMBER OF SEQUENCES: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 1300 I St. CITY: Washington STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
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1300 I Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Okazaki, Makoto
Kawai, Shinji
Tsujimura, Atsushi
                                   linear
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               cDNA to mRNA
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26-AUG-1993
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ER: 02481.1323-00000
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Query Match
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; LOCATION:
US-08-738-349-1
                                                         US-08-232-463-14
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US-08-232-463-14/c
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                Best Local Similarity
                            Query Match
    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                    NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 3047
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)836-9300
TELEFAX: (703)683-4109
                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 14:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM:
STRAIN: O
FEATURE:
                                                                     IMMEDIATE SOURCE:
CLONE: pTZgpt-F1s
                                                                                                                                                                                                                                                                              APPLICATION NUMBER: EP 9: FILING DATE: 26-AUG-1991 ATTORNEY/AGENT INFORMATION: NAME: BENT, Stephen A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: DORNER, F.
APPLICANT: SCHEIFLINGER, F.
APPLICANT: FALKNER, F. G.
TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
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                                                                                                                                              ENGTH:
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1800 Diagonal Road,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : Mus musculus osteoblastic cell line MC3T3E1
                                                                                                                                           7218 base pairs
 Conservative
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             4.3%; Score 45.6; DB 5.0%; Pred. No. 0.0057;
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 219; Mismatches
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                           DB 1;
 178;
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                           Length 7218;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Busfie
                                                                                                                    TELEFAX: (617)742-421 INFORMATION FOR SEQ ID NO:
                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEFAX: (617)742-4214
                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1121
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                                                                                                    SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     943
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                                        TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                           NAME: Amy E. Mandragouras REGISTRATION NUMBER: 36,2
                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: U
NAME/KEY:
                                                                                                                                                                                REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                      FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGTGTGAGAGCATTGTGGAAGAATACGAGGATGAGCTTATCGAATTCTTCTCCAGAGAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Massachusetts
                                                                                     746 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28 State Street
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No. 6197551el
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                                                                                              Sequence 5, Application US/08123934A Patent No. 6291206
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LENGTH: 1780
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                                                                   GENERAL INFORMATION: APPLICANT: WOZNEY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: FIbroblast growth factor TITLE OF INVENTION: related compositions and FILE REFERENCE: 51380
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
LOCATION: (723)..(1487)
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            APPLICANT:
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APPLICANT:
TITLE OF IN
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    NUMBER OF
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Local Similarity 52.58;
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                                                                                                                                                                                                                                     CTACTCACTGAAAAGGTCCTAAAAAAGCTGAGCTGGCAGGAAAGCCCTACCACTTGGTGCTA 1717
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                 INVENTION:
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  SEQUENCES:
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                            YAMAJI, No. 6291206oru
                                      THIES, R. Scott
                                                                   WOZNEY, John
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  RECEPTOR PROTEINS
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Pred. No. 0.0061;
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Pred. No. 0.0093;
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CLASSIFICATION:
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US-08-123-934A-5
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                                                                                                                                                                                                                                       Sequence 5, Application regions and information:
Applicant: GENETICS INSTITUTE, INC.
TITLE OF INVENTION: RECEPTOR PROTEI
NUMBER OF SEQUENCES: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
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TELEPHONE: 617 876 1170
TELEFAX: 617 876 5851
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ADDRESSEE: Genetics Institute Inc.- Legal Affairs
STREET: 87 CambridgePark Drive
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PC
FILING DATE: HEREWITH
                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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NAME: LAZAR, Steven R
REGISTRATION NUMBER: 32,
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy
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CLONE: CFK1-10a
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                                               SOFTWARE:
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                                             PatentIn Release #1.0, Version #1.25
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                 PCT/US94/10080
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Pred. No. 0.
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Best Local Similarity 69.0%;
Matches 58; Conservative
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               TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 110:
SEQUENCE CHARACTERISTICS:
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                                                                                              CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 21
                                                                                                                                                                                                           MEDIIM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION DATA:
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MEDIUM TYPE: Floppy
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PPLICANT: Dillin, Davin C
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Matches 83; Conserv
    Matches
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                                                                                                                                                                                                     TELEFAX: (206) 682-60 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                NAME: MAKI, DAVId J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 21
TELECOMMUNICATION INFORMATION:
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                                                                                             MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy
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                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Jiangchun APPLICANT: Dillon, Davin C.
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ORIGINAL SOURCE:
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STREET: 50.
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                                                                                                                             TOPOLOGY:
                                                                                                                                          STRANDEDNESS:
                                                                                                                                                    TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                 Local
                                                                                                                                                                                                                                   TELEPHONE:
                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: SEED and BERRY LLP STREET: 6300 Columbia Center,
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STRANDEDNESS: sing
                                                                                ORGANISM:
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   Conservative
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                54.2%;
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 Score 42.2; DB 4;
Pred. No. 0.036;
1; Mismatches 69;
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; ORGANISM: Homo sapien
US-09-605-785-110
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                                                                             Sequence 110, Application US/09439313 Patent No. 6329505
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                                                                  GENERAL INFORMATION:
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Best Local Similarity 54.2%;
Matches 83; Conservative
                         APPLICANT: Xu, Jiangchun
APPLICANT: Dillon, Davin C.
APPLICANT: Micham, Jennifer L.
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                   APPLICANT:
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CURRENT FILING DATE: 2000-06-27
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APPLICANT: Hepler, William
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C16
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Mitcham, Jennifer L.
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lck, Thomas S.
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1024 ССGAAAGTAAAAAAAAAAAAAAAAAAAAAAAAA 1056
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; SOFTWARE: FastSEQ for W
; SEQ ID NO 110
; LENGTH: 3410
; TYPE: DNA
; ORGANISM: Homo sapien
US-09-352-616A-110
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SEQ ID NO 110
LENGTH: 3410
TYPE: DNA
ORGANISM: Homo sapien
US-09-439-313-110
                                                                                                                                                                             Query Match 3.9%;
Best Local Similarity 54.2%;
Matches 83; Conservative
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Best Local Similarity 54.2%;
Matches 83; Conservative
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TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY AND DIAGNOSIS
TITLE OF INVENTION: OF PROSTATE CANCER AND METHODS FOR THEIR (
FILE REFERENCE: 210121.427C8
                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: 210121.427C8 CRUCE AND COURENT APPLICATION NUMBER: US/09/352,616A CURRENT FILING DATE: 1999-07-13 NUMBER OF SEQ ID NOS: 472
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CURRENT FILING DATE: 1999-11-12
NUMBER OF SEQ ID NOS: 575
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C9
                                                                               3236 TTATTTAGCGGGGTGAATATTTTATACTGTAAGTGAGCAATCAGAGTATAATGTTTATGG 3295
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                                     TGGCAGCATTGCCTTTTATATTACGTTTTTATGGAAATGAACTGAAAAAAACTCTTGAAA 1023
FastSEQ for Windows Version 3.0
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Retter, Mark
Solk, John
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Reed, Steven G.
Kalos, Michael
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                                                                                                                                                                           Conservative
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 110
                                                                                                                                                    Query Match
Best Local
                                                                                                                                 Matches
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APPLICANT: Dillon, Davin C.
APPLICANT: Dillon, Davin C.
APPLICANT: Mitcham, Jennifer Lynn
TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE
TITLE OF INVENTION: CANCER AND METHODS FOR THEIR USE
FILE REFERENCE: 210121.427C6
CURRENT APPLICATION NUMBER: US/09/232,149A
CURRENT FILING DATE: 1999-01-15
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TITLE OF INVENTION: AND DIAGNOSIS OF BREAST CANCER
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                                                       3236 TTATTTAGCGGGGTGAATATTTTATACTGTAAGTGAGCAATCAGAGTATAATGTTTATGG 3295
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964 TGGCAGCATTGCCTTTTATATTACGTTTTTATGGAAATGAACTGAAAAAAACTCTTGAAA 1023
                                                                                         904 TGAATCACTGGAGCAAGCAGCCTACACCAAACGTGATGGAACACCCCCAGGAGGGGAAGA 963
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Local Similarity 54.2%;
les 83; Conservation
                                                                                                                                 Local Similarity
es 83; Conserv
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Dillon, Davin C.
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Pred. No. 0.036;
1; Mismatches 69;
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                                                                                                                             Score 42.2; DB
Pred. No. 0.036;
1; Mismatches
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                                                                                                                Query Match 3.9%;
Best Local Similarity 70.9%;
Matches 56; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 5852 base pairs
TYPE: NUCLEIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 19
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz Macklewicz & No. 5389526ris
STREET: One Liberty Place 46th Floor
                          1038 AAAAAAAAAAAAAAAAA 1056
                                                        TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: AU PJ 7187
APPLICATION NUMBER: PCT/AU90/00530
FILING DATE: 02-NOV-1989
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 19920625 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Improved Plasmid Vectors f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1024 CCGAAAGTAAAAAAAAAAAAAAAAAAAAAAAAA 1056
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                                                                                  978 TTTATATTACGTTTTTATGGAAATGAACTGAAAAAACTCTTGAAACCGAAAGTAAAAAA 1037
                                                                                                                                                                                                                                       NAME/KEY:
LOCATION:
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TOPOLOGY: 11r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM:
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SYSTEM: PC-DOS/MS-DOS
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2378..5038
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Andy C
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                                                                                                                              Score 42.2; DB 1;
Pred. No. 0.047;
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3 Dictyostelium
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RESULT 15 US-09-439-923-1

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Sequence 1, Application US/09439923
Patent No. 6426208
GENERAL INFORMATION:
APPLICANT: Emil D. Kakkis
APPLICANT: Emil D. Kakkis
APPLICANT: Emil D. Kakkis
TITLE OF INVENTION: for producing and Purifying the Same and Methods
TITLE OF INVENTION: Treating Diseases Caused by Deficiencies Thereof
TITLE OF INVENTION: Treating Diseases Caused by Deficiencies Thereof
CURRENT APPLICATION NUMBER: US/09/439,923
CURRENT APPLICATION NUMBER: US/09/439,923
UNUMBER OF SEQ ID NOS: 2
SOFTWARE: FastSEQ for Windows Version 3.0
LENGTH: 6200
TYPE: DNA
ORGANIAM: Homo sapiens
FEATURE:
NAME/KBY: CDS
LOCATION: (1558)...(3516)
Search completed: March 30, 2003, 20:59:50 Job time: 104.294 secs
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Result
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Sequence:
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1: /cgn2_6/ptodata/1/pubpna/U
2: /cgn2_6/ptodata/1/pubpna/U
3: /cgn2_6/ptodata/1/pubpna/U
4: /cgn2_6/ptodata/1/pubpna/U
6: /cgn2_6/ptodata/1/pubpna/U
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length: 2000000000
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Match
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1069
       574371 seqs, 425486471 residues
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Maximum Match 100%
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/cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
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                              US-10-028-072-173
US-10-121-049-173
US-10-123-904-173
US-10-140-470-173
US-10-176-918-173
US-10-176-918-173
US-10-176-918-173
US-10-176-921-173
US-10-140-474-173
US-10-140-474-173
US-10-140-474-173
US-10-140-002-173
US-10-140-002-173
US-10-142-413-173
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e 31(Sequence 17. Appl	e 13.	13	107	96	Sequence 5. Appli	98		Sequence 42. Appl		Sequence 79, Appl	346.		Sequence 105, App	Sequence 34, Appl	Sequence 533, App	Sequence 34, Appl	4584		778.	1335	779,		Sequence 228, App

ALIGNMENTS

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CURRENT APPLICATION NUMBER: US/10/028,072
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/049911
PRIOR FILING DATE: 1997-06-18
PRIOR APPLICATION NUMBER: 60/056974
PRIOR FILING DATE: 1997-08-26
PRIOR APPLICATION NUMBER: 60/059113
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/059115
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/059117
PRIOR APPLICATION NUMBER: 60/059117
PRIOR APPLICATION NUMBER: 60/059129
PRIOR FILING DATE: 1997-09-17
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US-10-028-072-173
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APPLICANT: Zhang
TITLE OF INVENTION:
FILE REFERENCE:
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Publication No
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APPLICANT: Beresini, Ma
                   OR APPLICATION NUMBER: 60/059115
OR FILING DATE: 1997-09-17
OR APPLICATION NUMBER: 60/059117
OR FILING DATE: 1997-09-17
OR APPLICATION NUMBER: 60/059122
OR FILING DATE: 1997-09-17
OR APPLICATION NUMBER: 60/059184
OR FILING DATE: 1997-09-17
OR APPLICATION NUMBER: 60/059263
OR APPLICATION NUMBER: 60/059263
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Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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Watanabe, Colin K
Wood, William
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Gerritsen, Mary E.
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DATE:
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OR APPLICATION NUMBER: 60/090538
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CGAGGATGAGCTTATCGAATTCTTCTCCAGAGAGGCTGACAACGTTAAAGACAACTTTG
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                              CTACGTACGCGTCGTGAGCCGGAATGGAGAATCCAGTGAACTAGACTTACAGGGGATCCG
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Pred. No. 1.7e-187;
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APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POI
TITLE OF INVENTION: ACLDS ENCODING THE SAME
FILE REFERENCE: P3330R1C17
CURRENT APPLICATION NUMBER: US/10/121,049
CURRENT FILING DATE: 2002-04-12
Prior Application removed - See File Wrapper
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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APPLICANT: Baker, Kevin P
APPLICANT: Beresini, Mau
APPLICANT: DeForge, Laur
APPLICANT: Desnoyers, Lu
APPLICANT: Pilvaroff, El
APPLICANT: Goo, Wei-Qian
APPLICANT: Goodward, Audra
APPLICANT: Goddward, Audra
APPLICANT: Goddward, Audra
APPLICANT: Goddward, Sudra
APPLICANT: Gorney, Austil
APPLICANT: Sherwood, Stee
APPLICANT: Sherwood, Stee
APPLICANT: Smith, Victor
APPLICANT: Stewart, Timo
APPLICANT: Tumas, Daniel
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US-10-121-049-173
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Goddard, Audrey
Goddwski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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Filvaroff, Ellen
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Wood,William
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ilarity 84.4%;
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RESULT 3
US-10-123-904-173
Sequence 173, Application US/10123904
Publication No. US20030022328A1
GENERAL INFORMATION:
APPLICANT: Beresini, Maureen
APPLICANT: Desnoyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Genriers
APPLICANT: Goddard, Audrey
APPLICANT: Goddard, Audrey
APPLICANT: Goddwski, Paul J.
APPLICANT: Godowski, Paul J.
APPLICANT: Sherwood, Steven
APPLICANT: Steventh L.
APPLICANT: Steventh L.
APPLICANT: Steventh Applicant
APPLICANT: Tumas, Daniel
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Desroyers, Luc
Desnoyers, Luc
Filvaroff, Ellen
Gao, Wel-Qiang
Gerritsen, Mary E.
Goddard, Audrey
Goddwski, Paul J.
Gigurney, Austin L.
Fisherwood, Steven
Tisherwood, Steven
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Misher Sewart, Timothy A.
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                              CGAGGATGAGCTTATCGAATTCTTCTCCAGAGAGGCTGACAACGTTAAAGACAAACTTTG
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Pred. No. 1.7e-187;
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
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APPLICANT: Beresini, Mauree
APPLICANT: Deproyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wei - Qiang
APPLICANT: Gao, Wei - Qiang
APPLICANT: Goddard, Audrey
APPLICANT: Goddord, Audrey
APPLICANT: Godowski, Paul J
APPLICANT: Gurney, Austin L
APPLICANT: Sherwood, Steven
APPLICANT: Sherwood, Steven
APPLICANT: Stewart, Timothy
APPLICANT: Stewart, Timothy
APPLICANT: Tumas, Daniel
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Best Local :
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CURRENT APPLICATION NUMBER: US/10/140,470
CURRENT FILING DATE: 2002-05-06
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                                                                                    CTAGGGTTGGGACCCACAGAAAACAAAGTGAGAGTCCGGCTGCTTTCCAGAGCCTGGGCCC
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
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APPLICANT: Wood, WILLIAM:
APPLICANT: Wood, WILLIAM:
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330RLC353
FILE REFERENCE: WIGHTH SAME
FILE REFERENCE: P3330RLC353
                                                                                                                                                                                                                                                                                                                   Sequence 173, Applic Publication No. US20 GENERAL INFORMATION:
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Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
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                                                                                          Watanabe, Colin K
Wood, William
                                                                                                                   Tumas, Daniel
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Desnoyers, Luc
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                                                                                                                                                                                                                                              Filvaroff, Ellen
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POLYPEPTIDES AND

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CURRENT FILING DATE: 2002-
PRIOR APPLICATION removed -
UNUMER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
ORGANISM: Homo Sapien
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Pred. No. 1.7e-187;
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CURRENT FILING DATE: 2002-06-20
Prior Application removed - See File Wrap
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
ORGANISM: Homo Sapien
US-10-176-918-173
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US-10-176-918-173
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                                                                CACTGGAGCAAGCAGCCTACACCAAACGTGATGGAACACCCCCAGGAGGGGAAGATGGCA
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 GGGTTGGCTAGCCCTACTTTTGGGGGGTCCTGCTGGGAACTGCCTGGGCTCGAAGGAGCCA
                                  ACGCCGCCGCCGTGGGAGCAGAGGTGGAGCGACCCTGTTACACTAAAGATGAAAGGCTG
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                       ACGGCGGCGCCCTGGGAGCAGAGGTGGAGCGACCCCATTACGCTAAAGATGAAAGGCTG
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Similarity 84.48;
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Wood,William
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Gurney, Austin L.
Sherwood, Steven
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DeForge, Laura
Desnoyers, Luc
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Pred. No. 1.7e-187;
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APPLICANT: Beresini, Mauree
APPLICANT: Berosge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Glanyer (Silen
APPLICANT: Glanyer (Silen
APPLICANT: Gezritsen, Mary
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J
APPLICANT: Gurney, Austin L
APPLICANT: Sherwood, Steven
APPLICANT: Stewart, Timothy
APPLICANT: Stewart, Timothy
APPLICANT: Stewart, Timothy
APPLICANT: Stewart, Timothy
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         APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REPERENCE: P3330R1C288
CURRENT APPLICATION NUMBER: US/10/176,921
CURRENT APPLICATION NUMBER: US/10/176,921
CURRENT APPLICATION NUMBER: US/10/176,921
Prior Application removed - NUMBER OF SEQ ID NOS: 550
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
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Gerritsen, Mary E.
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Filvaroff, Ellen
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DeForge, Laura
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o. US20030027276A1
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; LENGTH: 1210
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                                CACTGGAGCAGCCCAC-----ACTGGCTTGATGGATCACCCCCAGGAGGGGAAAATGGTG
          CACTGGAGCAAGCCTACACCAAACGTGATGGAACACCCCCAGGAGGGGAAGATGGCA 968
                                                                                                                                               CTACGTACGCGTCGTGAGCCGGAATGGAGAATCCAGTGAACTAGACTTACAGGGGATCCG
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                                                                                                   AATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGAGGAATA
                                                                                                              AATTGACTCAGATATCAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATTGTGGGAAGAATA 788
                                                                                                                                      CTACGTACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCG
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Pred. No. 1.7e-187;
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GCATTGCCTTT--TATATTACGTTTTTATGGAAATGAACTGAAAAAA 1013

GCAATGCCTTTTATATATATGTTTTTACTGAAATTAACTGAAAAAA 1195

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; LENGTH: 1210
; TYPE: DNA
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US-10-137-865-173
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APPLICANT: Beresini, Mauree
APPLICANT: DeForge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff Eller
APPLICANT: Gao, Wei-Olang
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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Best Local Similarity
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Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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CURRENT FILING DATE: 2002-05-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: ACIDS |
FILE REFERENCE: P3330R1C154
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
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GGGTTGGCTGCCTGCTTCTGGGGGGCCCTGCTGGGAACCGCCTGGGCTCGGAGGAGCCA
                                                                       ACGGCGGCGCCGTGGGAGCAGAGGTGGAGCGACCCTGTTACACTAAAGATGAAAGGCTG
                                                                                                                                CTAGGGTTGGGACCCACAGAAAACAAAGTGAGAGTCCGGCTGCTTTCCCAGAGCCTGGGCC
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                                                        GTGGCAGGCGGAAGCGCTCTGGAGAATCCCGGACAGCCCTGCTCCCTGCAGCCAGGTG
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                             GGGTTGGCTAGCCCTACTTTTGGGGGTCCTGCTGGGAACTGCCTGGGCTCGAAGGAGCCA 428
                                                                                                                 -TAGTTTCGGGAGCCACTGGGGCCAAAGTGAGAGTCCAGCGGTCTTCCAGCGCTTGGGCC
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Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
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Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
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Pred. No. 1.7e-187;
0; Mismatches 145;
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POI
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C162
CURRENT APPLICATION NUMBER: US/10/140,474
CURRENT FILING DATE: 2002-05-06
Prior Application removed - See Palm or File Wrapp
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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                                                                                                                                                         Wood, William
                                                                                                                                                                     Watanabe, Colin K
                                                                                                                                                                                   Tumas, Daniel
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Filvaroff, Ellen
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Best Local
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                                                         CACTGGAGCAAGCATCACACCAAACGTGATGGAACACCCCCAGGAGGGGAAGATGGCA 968
                                                                                       CAGTAAGCGAACAGATCTTTGTGACCATGCCCTGCACATATCGCATGATGAGCTATGAAC
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                                                                                                                                      CACTGGAGCAGCCCAC----ACTGGCTTGATGGATCACCCCCAGGAGGGGAAAATGGTG
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US-10-142-431-173
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Best Local Similarity 84.4%;
Matches 850; Conservative
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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GENERAL INFORMATION:
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES
TITLE OF INVENTION: ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: P3330R1C251
CURRENT APPLICATION NUMBER: US/10/142,431
CURRENT FILING DATE: 2002-05-10
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TYPE: DNA
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APPLICANT: Beresini, Ma
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AGATCTACACTGTGGAGCTTGCAGGGCTCTGGTGGATGAATTAGAGTGGGAAATTGCCCG 488
                                                          GGGTTGGCTAGCCCTACTTTTGGGGGTCCTGCTGGGAACTGCCTGGGCTCGAAGGAGCCA 428
                                                                                            ACGGCGGCGGCCGTGGAGCAGAGGTGGAGCGACCCTGTTACACTAAAGATGAAAGGCTG
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
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Wood,William
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Palm

AND

NUCLEIC

Length 1210;

12;

Gaps

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APPLICANT: Zhang, Zemin

TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POI

TITLE OF INVENTION: ACIDS ENCODING THE SAME

FILE REFERENCE: P3330RIC211

CURRENT APPLICATION NUMBER: US/10/143,114

CURRENT FILING DATE: 2002-05-09

Prior Application removed - See Palm or File Wrapp

NUMBER OF SEQ ID NOS: 550

SEQ ID NO 173

LENGTH: 1210

TYPE: DNA

ORGANISM: Homo Sapien

US-10-143-114-173
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APPLICANT: Beresini, Mauree
APPLICANT: Desorge, Laure
APPLICANT: Desoryers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wei-Qiang
APPLICANT: Geritsen, Mary
APPLICANT: Goddard, Audrey
APPLICANT: Goddward, Audrey
APPLICANT: Gurney, Austin L
APPLICANT: Sherwood, Steven
APPLICANT: Sherwood, Steven
APPLICANT: Stewart, Timothy
APPLICANT: Watanab, Colin
APPLICANT: Sherwood, William
APPLICANT: Sherwood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 173, Application US/10143114 Publication No. US20030036180A1 GENERAL INFORMATION:
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
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Watanabe, Colin K
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Gerritsen, Mary E.
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Filvaroff, Ellen
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Pred. No. 1.7e-187;
0; Mismatches 145;
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US-10-140-002-173

Sequence 173,

Application US/10140002 US20030037623A1

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; Prior Application removed - S; NUMBER OF SEQ ID NOS: 550; SEQ ID NO 173; SEQ ID NO 173; LENGTH: 1210; TYPE: DNA; ORGANISM: Homo Sapien
US-10-140-002-173
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Best Local Similarity 84.4
Conservative
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APPLICANT: Beresini, Mau
APPLICANT: Besnoyers, Lu
APPLICANT: Desnoyers, Lu
APPLICANT: Gesnoyers, Lu
APPLICANT: Filvaroff, El
APPLICANT: Gezritsen, Ma
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APPLICANT: Goddard, Audr
APPLICANT: Goddwski, Pau
APPLICANT: Gurney, Austi
APPLICANT: Gurney, Austi
APPLICANT: Sherwood, Ste
APPLICANT: Stewart, Timo
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/140,002
CURRENT FILING DATE: 2002-05-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C59
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CGTGGACCCCAAGAAGACCATTCAGATGGGATCCTTCCGAATCCAGATCCAGATGGCAGCCA
                                        AGATCTACACTGTGGAGCTTGCAGGGCTCTGGTGGATGAATTAGAGTGGGAAATTGCCCG
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Godowski, Paul J.
Gurney, Austin L.
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Pred. No. 1.7e-187;
0; Mismatches 145;
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                                                                                                  | CAGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCACGATGAGCTATGAAT 908
           GCATTGCCTTT--TATATTACGTTTTTATGGAAATGAACTGAAAAAA 1013
                                               CACTGGAGCAAGCAGCCTACACCAAACGTGATGGAACACCCCCAGGAGGGGAAGATGGCA 968
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GCAATGCCTTTTATATATATGTTTTTACTGAAATTAACTGAAAAA
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; TYPE: DNA
; ORGANISM: Homo
US-10-142-419-173
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   Best Loc
Matches
               Query Match
Best Local Similarity
                                                                                                      Prior Apploication removed -
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 173, Application US/10142419 Publication No. US20030044945A1
                                                                                                                                                      APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C244
CURRENT APPLICATION NUMBER: US/10/142,419
CURRENT FILING DATE: 2002-05-10
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Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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Wood,William
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Filvaroff, Ellen
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   Conservative
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              64.68;
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Score 691; DB 9;
Pred. No. 1.7e-187;
0; Mismatches 145;
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RESULT 14
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                                                GCATTGCCTTT--TATATTACGTTTTTATGGAAATGAACTGAAAAAA 1013
                                                                    CACTGGAGCAGCCCAC-----ACTGGCTTGATGGATCACCCCCAGGAGGGGAAAATGGTG
                                                                                                 CAGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCACGATGAGCTATGAAT
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                                                                                 CACTGGAGCAAGCAGCCTACACCAAACGTGATGGAACACCCCCCAGGAGGGGGAAGATGGCA
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Application

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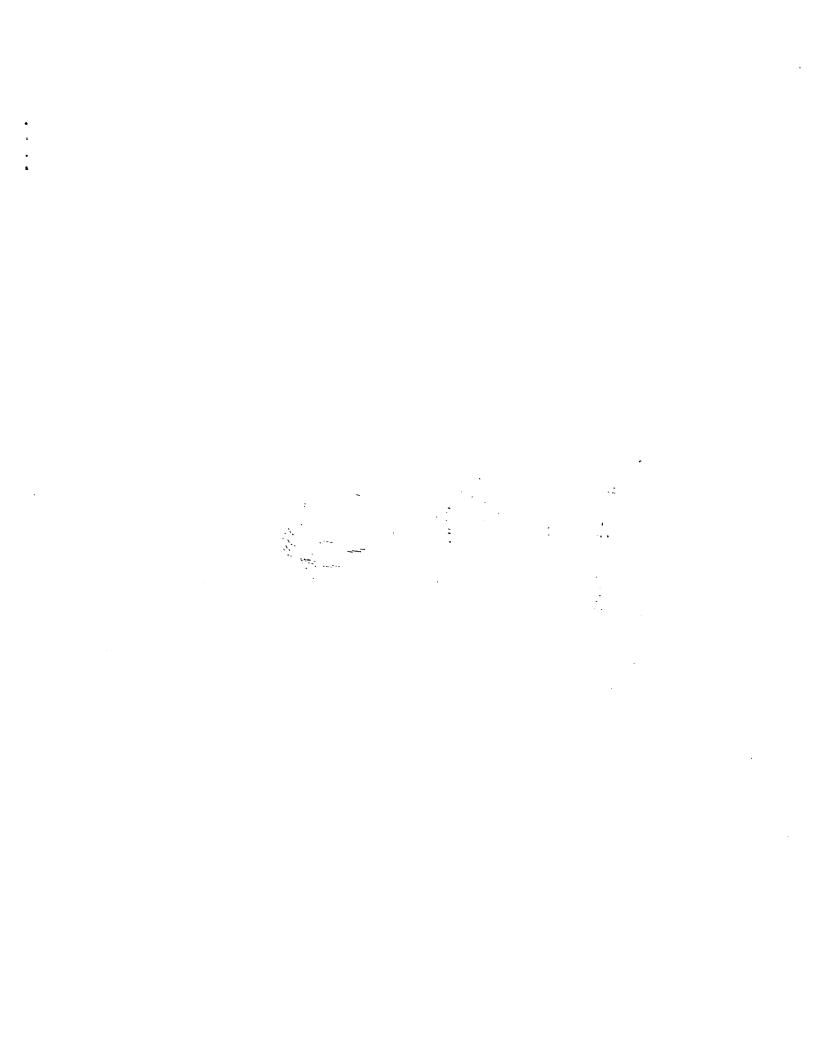
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; LENGTH: 1210
; TYPE: DNA
; ORGANISM: HOMO S
US-10-123-262-173
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CURRENT FILING DATE: 2002-04-15
Prior Application removed - See File Wrap;
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Publication No. US20030049816A1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Maureen
APPLICANT: DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGATCTACACTGTGGAGCTTGCAGGGCTCTGGTGGATGAATTAGAGTGGGAAATTGCCCG 488
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GTCAGTTGTGGAGGTACCTTATGCCCGCTCAGAGGCCCCACCTCACAGAGTTGCTTGAGGA
                                            ACGGCGGCGGCCGTGGGAGCAGAGGTGGAGCGACCCTGTTACACTAAAGATGAAAGGCTG 368
                             GGTGGACCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCAGATGGCAGCCA
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Watanabe, Colin K
Wood, William
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Gurney, Austin
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Gerritsen, Mary E.
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Pred. No. 1.7e-187;
0; Mismatches 145;
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; ORGANISM: HOMO
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APPLICANT: Beresini, Mau
APPLICANT: DeForge, Laur
APPLICANT: Desnoyers, Lu
APPLICANT: Filvaroff, El
APPLICANT: Gao, Wei-Qian
APPLICANT: Godoard, Audra
APPLICANT: Godowski, Pau
APPLICANT: Godowski, Pau
APPLICANT: Sherwood, Ste
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Matches
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                                                                                                                                         Prior Apploication removed -
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
                                                                                                                                                                        APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
APPLICANT: Wood, William
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILL REPERBUCE: P3330R1C249
CURRENT APPLICATION NUMBER: US/10/142,423
CURRENT FILING DATE: 2002-05-10
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RESULT 1 AK019927 LOCUS REFERENCE AUTHORS ACCESSION VERSION KEYWORDS REFERENCE DEFINITION JOURNAL MEDLINE PUBMED JOURNAL MEDLINE PUBMED TITLE ORGANISM AUTHORS AK019927.1 GI:12860332 HTC; CAP trapper. Mus musculus (strain:C57BL/6J) adult male pituitary gland cDNA mRNA, clone_lib:RIKEN full-length enriched mouse cDNA library clone:5330432Al0. Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y., Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10 (10), 1617-1630 (2000) Carninci,P. and Hayashizaki,Y. High-efficiency full-length cDNA cloning Meth. Enzymol. 303, 19-44 (1999) 99279253 AK019927 Mus musculus adult male pituitary gland cDNA, RIKEN full-length enriched library, clone:5330432AlO:transmembrane protein 4, full Mammalia; Mus musculus Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; sequence. Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus င genes ៥

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                      CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in Riken. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. First strand cDNA was primed with a primer [5, GAGAGAGAGGACCAAGAGCTCTTTTTTTTTTTTTTTTVN 3,], cDNA was prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by cap-trapper. cDNA went through one round of normalization to Rot = 3.0 and subtraction to Rot = 100.0. Second strand cDNA was prepared with the primer
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Submitted (18-AUG-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222,
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                                                                                                                                                                                                                                                                                                                                                                                                                          Fax:81-45-503-9216)
Please visit our web site (http://genome.gsc.riken.go.jp/)
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/db_xref="MGD:MGT:1899093"
/db_xref="taxon:10090"
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/clone_lib="RIKEN full-length
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   Kawai,J., Shinagawa,A., Shibata,K., Yoshino,M., Itoh,M., Ishii,Y., Arakawa,T., Hara,A., Fukunishi,Y., Konno,H., Adachi,J., Fukuda,S., Aizawa,K., Izawa,M., Nishi,K., Kiyosawa,H., Kondo,S., Yamanaka,I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayyashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new composers. 10 (10), 1617-1630 (2000)
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Rodentia;
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cDNA library
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                                  CDS
                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                             /organism="Mus musculus"
/strain="C57EL/GJ"
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/db_xref="MGD:MGI:1892961"
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                                                    /gene-"Tmem4"
                                                                                                                /dev_stage="10,
                                                                                                                                            /clone_lib="RIKEN full-length enriched mouse
                                                                                                                                                                                 /clone="2810406L24"
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YCE 5 (bases 1 to 853)

Réachi, J., Aizawa, K., Akahira, S., Akimura, T., Aono, H., Arai, A., Arakawa, T., Baldarelli, R., Bono, H., Brownstein, M., Bult, C., Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanagaki, T., Hara, A., Hayatsu, N., Hill, D., Hiramoto, K., Hiraoka, T., Hori, F., Hume, D., Imotani, K., Ishi, Y., Konno, H., Kouda, M., Koya, S., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Quackenbush, J., Saito, H., Saito, H., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Schriml, L., Shibata, K., Shibata, Y., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F., Tanaka, T., Tejima, Y., Toya, T., Yamamura, T., Yamanaka, I., Yasunishi, A., Yoshida, K., Yoshino, M., Muramatsu, M. and niyashizaki, Y.
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                                                                                                                                                                                                     CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. First strand cDNA was primed with a primer [5' GAGAGAGAGAGCCAGAGACCTCTTTTTTTTTTTTTTTVN 3'], cDNA was prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by cap-trapper. cDNA went through one round of normalization to Rot = 7.5 and subtraction to Rot = 37.5. Second strand cDNA was prepared with the primer adapter of sequence [5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                              Please visit our web site (http://genome.gsc.riken.go.jp/) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
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Location/Qualifiers
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11 days embryo"

cDNA library"

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BASE COUNT
ORIGIN
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Best Local
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TACACCAAACGTGATGGAACACCCCCAGGAGGGGAAGATGGCAGCATTGCCTTTTATATT
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/translation="MKGWGWLALLLGYLLGTAWARRSQDLHCGACRALVDELEWEIAR
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VDPKKTIQMGSFRINPDGSQSVVEVPYARSEAHLTELLEEVCDRMKEYGEQIDPSTHR
KNYVRVVSRNGESSELDLQGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK
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Best Local Sim.
Matches 923;
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Tissue Procurement: Lothar Hennighausen Ph.D., Robin Humphr
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MCC clone distribution information car
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM11631 row: c column: 17
High quality sequence stop: 854.
Location/Qualifiers
                                                                                               ACAGCCCCGTTTTTCCCAGCCAGCTGCTAGGGTTGGGACCCACAGAAAACAAAGTGAGAG 282
                                                                                                                                                             CCAGGCGGTCACTGGCCACCCTGAACCTGGCGGGAGCCGGAGCGCTCTGGAGAAGCCGGG 222
                                                                                                                                                                                                                               GCGNTCGCACGGGACCCTCAGATCTCCGCTTAGGTGCCTAGTTAAGTGCGGGAAGCTGGG 65
                                                                                                                                                                                                                                                                GGGCTCGCACGGGACCCTCAGATCTCCGCTTAGGTGCCTAGTTAAGTGCGGGAAGCTGGG 162
 CCTGTTACACTAAAGATGAAAGGCTGGGGTTGGCTAGCCCTACTTTTGGGGGGTCCTGCTG
                                                  TCCGGCTGCTTTCCAGAGCCTGGGCCACGGCGGCGGCCGTGGGAGCAGAGGTGGAGCGAC
                                 TCCGGCTGCTTTCCAGAGCCTGGGCCACGGCGGCGGCCGTGGGAGCAGAGGTGGAGCGAC
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23; Conservative
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National Institutes of Health,
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Mammalia; |
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                                                                                                                                                                                                                                                                                                                                                                                             /note="Organ: mammary; Vector: pCMV-SPORT6; Site_1: Sal
Site_2: NotI; Cloned unidirectionally. Primer: Oligo d
Library constructed by Life Technologies. Investigators
providing samples: Lothar Hennighausen/Robin Humphreys,
NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:10090"
/clone="mAGE:5249992"
/clone=lib="NCI_CGAP_Mam5"
/tissue_type="tumor, gross tissue"
/dev_stage="7 months"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Mus musculus"
/strain="C57BL/6J"
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                                                                                                                                                                                                                                             mRNA sequence.
B1454180
B1454180.1 GI:
EST.
 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Robin Hum
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLN
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
                                                                                                                               NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; 1 (bases 1 to 856)
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603170602F1 NCI_CGAP_Mam5
                                                                                                     Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
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                                                                                TGGAGAATCCAGTGAACTAGACTTACAGGGCATCCGAATTGACTCAGATATCAGCGGCAC
                                                                                                                                        GGTCCTGCTGGGAACTGCCTGGGCTCGAAGGAGCCAAGATCTACACTGTGGAGCTTGCAG
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                                         CCTCAAGTTTGCGTGTGAGAGCATTGTGGAAGAATACGAGGATGAGCTTATCGAATTCTT
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CTCCAGAGAGGCTGACAACGTTAAAGACAAACTTTGCAGTAAGCGGACAGATCTATGTGA
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Site_2: NotI; Cloned unidirectionally. Primer: Oligo o
Library constructed by Life Technologies. Investigators
providing samples: Lothar Hennighausen/Robin Humphreys,
NIH"
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/tissue_type="tumor, gross
/dev_stage="7 months"
/lab_host="DH10B"
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/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="IMAGE:5250001"
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                                                                                                                                                                                                                                                                                                                                                                                                           found through the I.M.A.G.E. Consortium/LLNL http://image.llnl.gov
Plate: LLAM11291 row: 1 column: 04
High quality sequence stop: 873.
Location/Qualifiers
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/clone="IMAGE:5119563"
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/strain="CZECH II"
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KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE ACCESSION VERSION LOCUS DEFINITION RESULT 6 BI412341

COMMENT JOURNAL Unpublished (1999) Contact: Robert Strausberg, Ph. BI412341 602991837F1 NCI_CGAP_Lu33 NIH-MGC http://mgc.nci.nih.gov/. National Institutes of Health, Mammalian Mus musculus mRNA sequence. BI412341 Mammalia; Eukaryota; Metazoa; EST nouse mouse umalia; Eutheria; (bases 1 to 945) cgapbs-r@mail.nih Procurement: Gilbe GI:15173264 Chordata; Rodentia; Gilbert 945 bp mRNA linear Mus musculus cDNA clone Smith, Craniata; Ver Sciurognathi; b P. Vertebrata; thi; Muridae; Gene Collection (MGC) EST 14-AUG-2001 IMAGE:5147624 5', Euteleostomi; ; Murinae; Mus

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/strain="CZECH II"
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                                                                                                                                               Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kitsunai,T., Tashiro,H., Itoh,M., Sumi,N., Ishi,Y., Nakamura,S., Hazama,M., Nishine,T., Harada,A., Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Rixen, M., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y. RIXEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
   Kawai, J., Shinagawa, A., Shibata, K., Arakawa, T., Hara, A., Fukunishi, Y.,
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                                                                                                                                                                                                                                                                            Adachi.J., Alzawa K., Akahira,S., Akimura,T., Aono,H., Arai,A., Arakawa,T., Baldarelli,R., Bono,H., Brownstein,M., Bult,C., Carninci,P., Fukuda,S., Fukunishi,Y., Furuno,M., Hanagaki,T., Hara,A., Hayatsu,N., Hill,D., Hiramoto,K., Hiraoka,T., Hori,F., Hume,D., Imotani,K., Ishii,Y., Itoh,M., Izawa,M., Kasukawa,T., Kato,H., Kawai,J., Kojina,Y., Konno,H., Kouda,M., Koya,S., Kurihara,C., Matsuyama,T., Miyazaki,A., Nishi,K., Nomura,K., Numazaki,R., Ohno,M., Okazaki,Y., Okido,T., Owa,C., Quackenbush,J., Saito,H., Saito,R., Sakai,C., Sakai,K., Sano,H., Sasaki,D., Schrimi,L., Shibata,K., Shibata,Y., Shihagawa,A., Shiraki,T., Sogabe,Y., Suzuki,H., Tagami,M., Tagawa,A., Takahashi,F., Tanaka,T., Tejima,Y., Toya,T., Yamamura,T., Yamanaka,I., Yasunishi,A., Yoshida,K., Yoshino,M., Muramatsu,M. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URU:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9216)
Please visit our web site (http://genome.gsc.riken.go.jp/) for
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                 /tissue_type="pancreas"
/clone_lib="RIKEN full-length enriched mouse
/dev_stage="10 day old"
        /dev_stage="10
1. .772
                                                                                      /clone="1810060D19"
/sex="male"
                                                                                                                              /db_xref="FANTOM_DB:1810060D19"
/db_xref="MGD:MGI:1897650"
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Adachi,J., Aizawa,K., Akahira,S., Akimura,T., Aono,H., Arai,A Arakawa,T., Baldarelli,R., Bono,H., Brownstein,M., Bult,C., Carnioci,P., Fukuda,S., Fukunishi,Y., Furuno,M., Hanagaki,T., Hara,A., Hayatsu,N., Hill,D., Hiramoto,K., Hiraoka,T., Hori,F. Hume,D., Imotani,K., Ishii,Y., Itoh,M., Izawa,M., Kasukawa,T.
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Mus musculus (strain:C57BL/6J) adult male hippocampus cDNA to mRNA, clone_lib:RIKEN full-length enriched mouse cDNA library
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222,
                                                                                                                                                                                   Similarity
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                          Contact: Hennig S'
Laboraty 123, dept.Lehrach
Max-Planck-Institut fuer Molekulare Genetik
Ihnestr.63-73, D-14195 Berlin, Germany
Tel: +49 30 8413 1612
Fax: +49 30 8413 1380
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Yahyawi, M., Hennig, S., Neidhardt, L., Radelof,
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AACGTTAAAGACAAACTTTGCAGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGA
                                                                                                                                                          GAGAGCATTGTGGAAGAATACGAGGATGAGCTTATCGAATTCTTCTCCAGAGAGGCCTGAC
                                                                                                                                                                                                                                                                                     CTAGACTTACAGGGCATCCGAATTGACTCAGATATCAGCGGCACCCTCAAGTTTGCGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                CCTTCTACCCACCGCAAGAACTACGTACGCGTCGTGAGCCGGAATGGAGAATCCAGTGAA
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                                                                                                                                                                                                                                                        CTAGACTTACAGGGCATCCGAATTGACTCAGATATCAGCGGCACCCTCAAGTTTGCGTGT
                                                                                                                                                                                                                                                                                                                                                                                CCTTCTACCCACCGCAAGAACTACGTACGCGTCGTGAGCCGGAATGGAGAATCCAGTGAA
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                                                                                                                             GAGAGCATTGTGGAAGAATACGAGGATGAGCTTATCGAATTCTTCTCCAGAGAGGCTGAN
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5'-GAGCTATTCCAGAAGTAGTGA-3'
FORWARD: 5'-TAATACGACTCACTATAGGG-3'
BACKWARD: 5'-TAATACGACTCACTATAGG-3'
Seq primer: 5'-ATTTAGGTGACACTATAG-3'
High quality sequence stop: 802.
Location/Qualifiers
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/db_xref="taxo":10090"
/clone="ICRFp522B2440"
/clone="lb="Mouse 9-day fetus cDNA library ICRFp52.
/tlssue_Type="whole embryo"
/dev_stage="embryonic 9-day"
/lab_host="E.coli, XL1 blue"
/note="Vector: PSVSport1; Site_1: NotI; Site_2: Saithorary preparation by oligo_dT priming of RNA. Clubrary preparation by oligo_dT priming of RNA. Clubrary preparation by oligo_dT priming of RNA. Clubrary proparation by oligo_dT priming of RNA. Clubrary priming oligon.
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Pred. No. 5.5e
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TTGGCTAGCCCTACTTTTGGGGGGTCCTGCTGGGAACTGCCTGGGCTCGAAGGAGCCAAGA
                                       GCGGCGGCGTGGGAGCAGAGGTGGAGCGACCCTGTTACACTAAAGATGAAAAGGCTGGGG
                                                          GCGGCGGCCGTGGGAGCAGAGGTGGAGCCACCCTGTTACACTAAAGATGAAAGGCTGGGG
                                                                                                                                                             GGGTTGGGACCCACAGAAAACAAAGTGAGAGTCCGGCTGCTTTCCAGAGCCTGGGCCACG
                                                                                                                                                                                                   TTAGGTGCCTAGTTAAGTGCGGGAAGCTGGGCCAGGCGGTCACTGGCCACCCTGAACCTG
                                                                                                                                                                                                                                                                                                                                                                 GAGGGGCGGGCTTAGGGTCAGTTTCGGTGGGGGGCTCGCACGGGACCCTCAGATCTCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           602054331F1 NCI_CGAP_SG2 mRNA sequence.
BF535071
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National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            http://image.llnl.gov
Plate: LLAM9525 row: n column:
High quality sequence stop: 685.
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
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95.9%;
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CGTACGCCGTCGTGAGCCGGAATGGAGAATCCAGTGAACTAGACTTACAGGGCATCCGAAT 731
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAGGGGGACAGATTTATTGTGACTTGCC
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Clone distribution: NCI-CGAP clone distribut
found through the I.M.A.G.E. Consortium/LLNL
http://image.llni.gov
Plate: LLAM11293 row: n column: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata; I
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
1 (bases 1 to 808)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collectionabilished (1999)
Contact: Robert Strausberg, Ph.D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert :
                                                                                                                                                                                                                                                                                                                                                                                                           cDNA Library Preparation: M. Bento Soares, Ph.D.,
                                                                                                                                                                                   quality sequence start: 4 quality sequence stop: 768.
Location/Qualifiers
/organism="Mus musculus"
/strain="CZECH II"
/db_xref="taxon:10090"
/clone="IMAGE:5120471"
/clone_lib="NCI_CGAP_Lu33"
/tissue_type="pooled lung tumors"
/lab_host="DH108 (phage-resistant)"
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s musculus cDNA clone IMAGE:5120471 5',
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clone distribution
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; Murinae; Mus
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                                           AAGATGGCAGCATTGCCTTTTATATTACGTTTTTATGGAAATGAACTGAAAAAAACTCTT
                                                                                            CAAACTTTGCAGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCACGATGA
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nilarity 96.3%;
Conservative
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                                                                                     CCCTGTTACACTAAAGATGAAAGGCTGGGGTTGGCTAGCCCTACCTTTTGGGGGTCCTGCT
                                                                                                                                                         GTCCGGCTGCTTTCCAGAGCCTGGGCCACGGCGGCGGCGGCGGAGCAGAGGTGGAGCGA 341
                                                                                                                                                                                                                               GACAGCCCCGTTTTTCCCAGCCAGCCAGCTAGGGTTGGGACCCACAGAAAACAAAGTGAGA 281
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                                                                                                                                                                                                                                                                                                                                                           GGGCTCGCACGGGA-CCTCAGATCTCCGCTTAGGTGCCTAGTTAAGTGCGGGAAGCTGGG 59
                                   GGGAACTGCCTGGGCTCGAAGGAGCCAAGATCTACACTGTGGAGCTTGCAGGGCTCTGGT
                                                                                                                                        GTCCGGCTGCTTTCCAGAGCCTGGGCCACGGCGGCGGCGGCGGGGGAGCAGAGGTGGAGCGA
                                                                                                                                                                                                                                                                                   CCAGGCGGTCACTGGCCACCCTGAACCTGGCGGGAGCCGCGAGCGCTCGTGGAGAAGCCGG 119
                                                                                                                                                                                                               GACAGCCCCGTTTTTCCCCAGCCAGCTGCTAGGGTTGGGACCCACAGAAAACAAAGTGAGA
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Tissue Procurement: Lothar Hennighausen Ph.D., Robin Humph.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
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National institutes of Health, Mammalian
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Mammalia; Eutheria;
1 (bases 1 to 863)
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BI454899
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Clone distribution: MGC clone distribution information
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Location/Qualifiers
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/strain="C578L/6J"
/db_xref="Taxon:10090"
/clone="IMAGE:5252939"
/clone_lib="NCI_C6AP_Mam5"
/tious_tions_lib="NCI_C6AP_Mam5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note-"Organ: mammary; Vector: pCMV-SPORT6; Site_1: Sal: Site_2: NotI; Cloned unidirectionally. Primer: Oligo d'Library constructed by Life Technologies. Investigators providing samples: Lothar Hennighausen/Robin Humphreys, NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /tissue_type="tumor, gross
/dev_stage="7 months"
/lab_host="DH10B"
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Eutheria; Rodentia;
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                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith,
cDNA Library Preparation: M. Bent
                                                                                                                                                                                                                        1 (bases 1 to 843)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                Plate: LLAM11362
                                                                                                         found through the I.M.A.G.E. Consortium/LLNL
http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                           602990995F1 NCI_CGAP_Lu33 Mus
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Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae;
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BI412539
                                                                                                                           cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by:Incyte Genomics, Inc.
Clone distribution: NCI-CGAP clone distribution informati
                                                                                                                                                                                                                                                                                                         house mouse
                                                             quality sequence start: 38 quality sequence stop: 824. Location/Qualifiers
      /organism="Mus musculus"
/strain="CZECH II"
/db_xref="taxon:10090"
/clone="IMAGE:5146967"
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A clone IMAGE:5146967 5',
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                                 AGCAAGCAGCCTACACCAAACGTGATGGAACACCCCCAGGAGGGGAAGATGGCAGCATTG
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CCTTTTATATTACGTTTTTATGGAAATGAACTGAAAAAAACTCTTGAAACCGAAAGTAAA 1034
                                                                                                  GCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCACGATGAGCTATGAATCACTGG
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/tissue_type="pooled lung tumors"
/lab_host="DH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)"
/note="Organ: lung; Vector: pT773D-Pac (Pharmacia) with a modified polylinker; Site_1: NotI; Site_2: EcoRI; 1st strand cDNA was prepared from mRNA obtained from pooled lung tumors with a Not I - oligo(dT) primer [5', TGTTACCANFOTGAASTGGGAGCGCCCCTCTGTTTTTTTTTTTTTTT 3']
Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT7T3 vector. Library went through one round of normalization, and was constructed by Bento Soares and M. Fatima Bonaldo. "
39 a 195 c 238 g 171 t
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Pred. No. 2.5e-103;
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                                                                                                         TGGGACCCACAGAAAACAAAGTGAGAGTCCGGCTGCGTGCCAGAGCCTGGGCCACGGCGG 62
                                               CGGCCGTGGGAGCAGAGGTGGAGCCACCCTGTTACACTAAAGATGAAAGGCTGGGG-TGG
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National Institutes of Health, Mammalian
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Clone distribution: NCI-CGAP clone distribution information
found through the I.M.A.G.E. Consortium/ILNL at:
http://image.llnl.gov
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Mus musculus"
/strain="CZECH II"
/db_xref="taxon:10090"
/clone="IMAGE:5120574"
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
1 (bases 1 to 894)
                                                                                                                                                   CDNA Library Preparation: Invitrogen Corp
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                               Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. David Rowe
                                                                                                                                                                                                                                                                                                                                                                                                    BQ963382 894 bp
AGENCOURT_10050169 NIH_MGC_134 Mus
IMAGE:6508512 5', mRNA sequence.
BQ963382
BQ963382.1 GI:22378860
EST.
                                                                                                                      http://image.llnl.gov
Plate: LLAM14074 row: f column:
                                                                                                                                                                                                                                                               Contact: Robert Strausberg,
                                                                                                                                                                                                                                                                                 Unpublished (1999)
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National Institutes of Health, Mammalian
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/clone="IMAGE:6508512"
/clone_lib="NIH_MGC_134"
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                                              /organism="Mus musculus"
/db_xref="taxon:10090"
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                                                                      CTACGTACGCGTCGTGAGCCGGAATGGAGAATCCAGTGAACTAGACTTACAGGGCATCCG
                                                                                              GTCAGTTGTGGAGGTACCTTATGCCCGCTCAGAGGCCCACCTCACAGAGTTGCTTGAGGA 608
          ACGAGGATG 796
                           AATTGACTCAGATATCAACGGCACCCTCAAGTTTGCGTGTGAGAAGCATTGTGGAAGAAT
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/note="Vector: pCMV-SPORT6.1.ccdb; Site_1: EcoRV; Site_2:
NotI; Cloned unidirectionally. Primer: Oligo dT. Average
insert size 1.7 kb. Constructed by ResGen, Invitrogen
Corp. Note: this is a NIH_MGC Library."
a 232 c 268 g 168 t 1 others
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Search completed: March 30, Job time: 1531.26 secs

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-MODEL-framet_p2n.model -DEV-xlp
-O_cgn2_1/USPTO_Spool_VS10082502/runat_24032003_135100_6599/app_query.fasta_1.1308
-OB-EST -QFMT-fastap -SUFFIX-rst -MINNATCH-0.1 -LOOPCL-0 -LOOPEXT-0
-UNITS-blits -START-1 -END--1 -MARRIX-blosun62 -TRANS-human40.cdi -LIST-45
-DOCALIGN-200 -THR_SCORE-pot -THR_MAX-100 -THR_MIN-0 -ALIGN-15 -MODE-LOCAL
-OUTFMT-pto -NORM-ext -HEAPSIZE-500 -MINLEN-0 -MAXLEN-200000000
-USER-US10085502_8CGN_1_1_5425_8runat_24032003_135100_6599 -NCPU-6 -ICPU-3
-NO_MARP -LARGOUERY -NEG_SCORES-0 -WAIT -LONGLOG -DEV_TIMEOUT-120
-WARN_TIMEOUT-30 -THREADS-1 -XGAPOP-10 -XGAPEXT-0.5 -FGAPOP-6 -FGAPEXT-7
-YGAPOP-10 -YGAPEXT-0.5 -DELOP-6 -DELEXT-7
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SUMMARIES

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ALIGNMENTS

	ORGANISM	SOURCE	VERSION	ACCESSION		DEFINITION	LOCUS	AK013568	RESULT 1
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammaila; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	clone_lib:RIKEN full-length enriched mouse cDNA library clone:2900022B12. Mus musculus	HTC; CAP trapper. Mus musculus (strain:C57BL/6J) adult male hippocampus cDNA to mRNA,	AK013568.1 GI:12850979	Insert sequence. AK013568	enriched library, clone:2900022BI2:transmembrane protein 4, full	-	AK013568 754 bp mRNA linear HTC 19-JAN-2002		

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JOURNAL
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Direct Submission
Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute or Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute or Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Gehohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, "nr.http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
99279253
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muzamatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                         Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Functional annotation of a full-length mouse cDNA collection Nature 409 (6821), 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and Hayashizaki,Y.
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US-10-082-502-19 (1-182) x AK013568 (1-754)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 prepare mouse tissues. First strand cDNA was primed with a primer [5, GAGRAGARAGGATCARAGACTCTTTTTTTTTTVN 3'], cDNA was prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by cap-trapper. Second strand cDNA was prepared with the primer address of sequence [5, GAGRAGAGATTCTCGAGTTAATTAATTNATCCCCCCCCCCCC 3']. cDNA was cleaved with xhoI and SstI. Cloning sites, 5' end: XhoI; 3' end: SstI.
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Please visit our web site (http://genome.gsc.riken.go.jp/) for
further details.
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/db_xref="GI:12850980"
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AK007914.1 GI:12841773
HTC: CAP trapper
Mus musculus (strain:C57BL/6J) 10
mRNA, Clone_lib:RIKEN full-length
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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Adachi,J., Alzawa,K., Akahira,S., Akimura,T., Aono,H., Arai,A., Arakawa,T., Baldarelli,R., Bono,H., Brownstein,M., Bult,C., Carninci,P., Fukuda,S., Fukunishi,Y., Furuno,M., Hanagaki,T., Hara,A., Hayatsu,N., Hill,D., Hiramoto,K., Hiraoka,T., Hori,F., Hume,D., Imotani,K., Ishii,Y., Itoh,M., Izawa,M., Rasukawa,T., Kato,H., Kawai,J., Kojima,Y., Konno,H., Kouda,M., Koya,S., Kurihara,C., Matsuyama,T., Myazaki,A., Nishi,K., Nomura,K., Kurihara,C., Matsuyama,T., Myazaki,A., Nishi,K., Nomura,K., Kurihara,C., Shibata,Y., Tagawa,A., Shiraki,T., Tagawa,A., Takahashi,F., Tanaka,T., Tejima,Y., Toya,T., Yamamura,T., Yamanaka,I., Yasanishi,A., Yoshida,K., Yoshino,M., Muramatsu,M. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
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Direct Submission
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National Institutes of Health, Mammalian
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Tissue Procurement: Gilbert Smith,
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Contact: Robert S1
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DNA Sequencing by:Incyte Genomics, Inc.
Clone distribution: NCI-CGAP clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM11362 row: n column: 24
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Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae;
1 (bases 1 to 843)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               602990995F1 NCI_CGAP_Lu33 mRNA sequence. BI412539
                                                                                                                                                                                                                                                                                                                                                                                                     Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert :
                                                                                                                                                                                                                                                                                                                                                                                   Bonaldo, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg,
                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished (1999)
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Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                High-efficiency
Meth. Enzymol 3
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Mus musculus (strain:C57BL/6J) 10, 11 days clone_lib:RIKEN full-length enriched mouse
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Eutheria;
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                           Hayash1zaki,Y.

Direct Submission

Submitted (10-JUL-2000) Yoshihide Hayash1zaki, The Institute of Submitted (10-JUL-2000) Yoshihide Hayash1zaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
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                                                                                                                                                                                                                                                                                                                                                                                                                                             Please visit our web site (http://genome.gsc.riken.go.jp/) further details.
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141 ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys
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/translation="MKGWGWLALLLGVLLGTAWARRSQDLHCGACRALVDELEWEIAR
VDPKKTIOMGSGSTVEVFVARSEAHLTELLEEVCDEWKEYGEOIDESTHR
KNYVRVSRNGESSELDLQGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK
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/db_xref="FANDLDB:2810406L24"
/db_xref="MGD:MGI:1892961"
/db_xref="taxon:10090"
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1255 bp mRNA linear HTC 19-JAN-20 Mus musculus adult male pituitary gland cDNA, RIKEN full-length enriched library, clone:5330432A10:transmembrane protein 4, full
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S Adachi, J., Aizawa, K., Akahira, S., Akimura, T., Aono, H., Arai, A., Adachi, J., Aizawa, K., Akahira, S., Fukunishi, Y., Furuno, M., Hanagaki, T., Araikawa, T., Baldareili, R., Bono, H., Furuno, M., Hanagaki, T., Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanagaki, T., Hori, F., Hume, D., Imotani, K., Hill, D., Hiramoto, K., Hiraoka, T., Hori, F., Hume, D., Imotani, K., Ishi, Y., Itoh, M., Izawa, M., Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Ouackenbush, J., Salto, H., Salto, R., Sakai, Y., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F., Tanaka, T., Tejima, Y., Toya, T., Yamanura, T., Yamanaka, I., Yasaunishi, A., Yoshida, K., Yoshino, M., Muramatsu, M. and
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Submitted (18-AUG-2000) Yoshihide Hayashizaki, The Institute of Submitted (18-AUG-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokoham RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokoham Kanagawa 230-0045, Japan (E-mail:genome-res@sc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Please visit our web site (http://genome.gsc.riken.go.jp/) for further details.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 802)

Yahyawi,M., Hennig,S., Neidhardt,L., Radelof,U., Hermann,B.G., Lehrach,H. and O'Brien,J.

Detection of a high number of novel genes in a 9-day mouse embryo cDNA library normalised by oligonucleotide fingerprinting Unpublished (2001)

Contact: Hennig S

laboraty 123, dept.Lehrach

Max-Planck-Institut fuer Molekulare Genetik

Ihnestr.63-73, D-14195 Berlin, Germany
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Tel: +49 30 8413 1612
Fax: +49 30 8413 1380
Email: hennig@molgen.mpg.de
EST's are made from clones being repre
Clone clusters were calculated from ol
PCR PRIMERS
FORWARD: 5'-GAGCTATTCCAGAAGTAGTGA-3'
BACKWARD: 5'-TAGTAGGGACGTATAGGG-3'
Seq primer: 5'-AATTAGGTGACACTATAGG-3'
High quality sequence stop: 802.
Location/Qualifiers
GluIleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
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                                                                                                                                                                                                                                                                                                                                                                                                           ATGAAAGGCTGGGGTTGGCTAGCCCTACTTTTGGGGGTCCTGCGGAACTGCCTGGGCT
                                                                                                                                                                                                                                                                                                        (1-182) x BF608664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Mus musculus"
/db_xref="taxon:10990"
/clone="ICRFp522B2440"
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/tissue_type="whole embryo"
/dev_stage="embryonic 9-day"
/lab_host="E.coli, XII blue"
/note="Vector: PSVSport1; Site_1: NotI; Site_2: Sa:
Library preparation by oligo_dT prining of RNA. Cli
be ordered from the Resource Center in Berlin,
http://www.rzpd.de."
13 a 206 c 243 g 159 t 1 others
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AUTHORS
TITLE
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KEYWORDS
SOURCE
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ORIGIN
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BI408381
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Plate: LLAM11291 row: 1 column: 04
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by:Incyte Genomics, Inc.

Clone distribution: NCI-CGAP clone distribution informati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith,
cDNA Library Preparation: M. Bent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 891)
NIH-MCC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                      High quality sequence stop: 873.
Location/Qualifiers
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602964013F1 NCI_CGAP_Lu33
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Mammalia;
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Rodentia;
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source

/organism="Rattus norvegicus"
/strain="Sprague-Dawley"
/db_xref="taxon:10116"
/clone="UI-R-DY1-coi-e-06-0-UI"
/clone_lib="UI-R-DY1"

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JOURNAL
MEDLINE
COMMENT
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AUTHORS
TITLE
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                                            The sequence contained an oligo-dT track that was present in the oligonucleotide that was used to prime the synthesis of first strand cDNA and therefore this may represent a bonafide poly A tail. The sequence tag present in the cDNA between the NotI site and the oligo-dT track served to verify it as a clone from the normalized cartilage library cDNA Library Preparation: M.B. Soard Lab Clone distribution: clones will be available through Research Cenetics (www.resgen.com)
                                                                                                                                                                                      Program for Rat Gene Discovery and Mapping University of Iowa 451 Eckstein Medical Research Building Iowa City, Tel: 319 335 8250
Fax: 319 335 9565
Email: msoares@blue.weeg.ulowa.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BQ210416 724 bp mRNA linear EST 02-MAY:
UI-R-DY1-coi-e-06-0-UI.sl UI-R-DY1 Rattus norvegicus cDNA clone
UI-R-DY1-coi-e-06-0-UI 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                          97044477
                                                                                                                                                                                                                                                                                                                                                         discovery
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Bonaldo, M.F., Lennor
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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Location/Qualifiers
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                                                                            GACAAACTTTGCAGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCATGAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="Organ: Femur and Tibla; Vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; UI-R-DYI is a normalized cDNA library containing the following tissue(s): Rat Cartilage from Femur and Tibla. The library was constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA synthesis was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to an EcoR I adaptor, digested with Not I, and cloned directionally into pT7T3-Pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I site and the (dT)18 tail. The sequence tag for this library is CTAATGGACG. The Rat cartilage tissue was provided by Dr Jeff Stevens at the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAG_TISSUE-cartilage
TAG_SEQ-CTAATGGACG"
206 c 157 g
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TAG_LIB=UI-R-DY1
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/dev_stage="ADULT"
/lab_host="DH10B (Life Technologies)"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Korea Research Institute of Bioscience & Biotechnology 52 Eceun-dong Yuseong-gu, Daejeon 305-333, South Korea Tel: +82-42-860-4470 Fax: +82-42-860-4409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oh, K.J., Cheong, J.E.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: yongsung@mail.kribb.re.kr
Plate: 11 row: B column: 03
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                                                                                                                                                                                                                                                         /incte=-Vorgan: Stomach; Vector: pTZ18RP1; Site_1: EcoRI; Site_2: NotI; The poly (A)+ RNA was decapped with tabacco acid pyrophosphatase (TAP) and ligated with DNA-RNA linker including EcoRI site by treatment of T4 RNA ligase. The first strand cDNA was synthesized from oligo dT-selected mRNA by priming with dT-tailed vector. The dT-tailed vector was adjusted to have about 60nt. The cDNA vector was circularized with E. coli DNA ligase after digestion of EcoRI which site is also included in vector. An RNA strand converted to a DNA strand by Okayama-Berg method. The obtained cDNA vectors were used for transformation of competent cells E. coli ToplOf' by electroporation method. After analyzing and sequencing about 2,000 - 3,000 colonies in original cDNA library, the abundant cDNAs were selected and amplified by PCR reaction using vector region primer including T7 promotor as 5' primer and N(dT)14 as 3' primer. The PCR products were used as template for synthesis of biotinylated single stranded RNA by in vitro transcription reaction. The synthesized RNA probes were hybridized with antisense single stranded cDNAs prepared from original liberary and incubated with avidin-gel. After removing DNA-RNA hybrids by centrifuge, the
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                                                                                                                                                                  subtracted cDNA libraries were constructed by transformaton of the remaining DNA into competent cells coll Toplof, with electroporation method."

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/cell_line="SNU-484"
/lab_host="Top10F'"
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/clone_11b="S5SNU484s1"
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E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,
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                              Email: yongsung@mail.kribb.re.kr
Plate: 11 row: H column: 01
High quality sequence stop: 591.
Location/Qualifiers
                                                                                                                                 Korea Research Institute of Bioscience & Biotechnology 52 Eceun-dong Yuseong-gu, Daejeon 305-333, South Korea Tel: +82-42-860-4409

Fax: +82-42-860-4409
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Contact: Kim YS
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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IMM, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y.,
IMM, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y.,
IMMALIA; Lose, J. Lose, J.
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121 GlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLygPheAlaCysGluSerIle
                                                  302 CATCGCAAGAACTACGTACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTA
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                                                                            HisargLysasnTyrValargValValSerArgAsnGlyGluSerSerGluLeuAspLeu 120
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/clone_lib="S5SNU484s1"
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/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lemishka, I., Scearce, M., Brestelli, J., Gradwohl, G., Clifton, S., Hiller, L., Marra, M., Pape, D., Wylie, T., Martin, J., Clistain, A., Schmitt, A., Theising, B., Ritter, E., Ronko, I., Bennett, J., Carden, M., Gibbons, M., McCann, R., Cole, R., Tsagareishvili, R., Williams, Jackson, Y. and Bowers, Y. Endocrine Pancreas Consortium Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BI712899
1d98f09.y1
similar to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished (2000)
Contact: Douglas Melton, Klaus H. Kaestner, & Endocrine Pancreas Consortium
Harvard University, Howard Hughes Medical Inst
Dept of Molecular and Cellular Biology, 7 Divi
MA 02138
Tel: 617-495-1812
                                                                                                                                                                                                                                                                                                                                                                                                                    Email: dmelton@biohp.harvard.edu
Library was constructed by Dr. Hiroshi Inoue DNA sequencing by:
Washington University Genome Sequencing Center For information obtaining a clone please contact: Dr. Hiroshi Inoue
(hinoue@im.wustl.edu)
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BI712899
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Mammalia; Eutheria;
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Location/Qualifiers
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                                                                      /note="organ: Pancreas; Vector: pBluescript SK(-); Site_1: NotI; Site_2: XhoI; cDNA made by oligo-dT priming. Size-selected on agarose gel. Average insert size -1kb. 5' XhoI site was destroyed after directional cloning. Amplified once. Contact information: Hiroshi Inoue, MD, Metabolism Div. (Alan Permutt Lab), Washington University School of Medicine, Box 8127, 660 South Euclid Ave., St. Louis, MO 63110, E-mail: hinoue@imgate.wustl.edu, Tel: 314-362-1916, Fax: 314-747-2692."
                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5085832"
/clone_lib="HR85 islet"
/tissue_type="Purified pancreatic islet"
/lab_host="DH10B"
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TR:Q9Y2B0 Q9Y2B0
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Email: cgapbs-r@mail.nih.gov
Tissue Procurement: David N. Louis, M.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                      697 bp 602014708F1 NCI_CGAP_Brn64 Homo 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                     BF344334.1 GI:11291554
EST.
                                                                                                                                             Contact: Robert Strausberg, Ph.D
                                                                                                                                                               Unpublished (1999)
                                                                                                                                                                            NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health,
                                                                                                                                                                                                                Mammalia; Eutheria;
1 (bases 1 to 697)
                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                   Homo sapiens
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                                                                                                                                                                                                                                Chordata;
Primates;
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                                                                                                                                                                               Mammalian
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160

509

389

329

80

209

149 40 68

269

mRNA

cDNA clone

linear

EST 22-NOV-2000 IMAGE:4150512

Gene

Collection (MGC)

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                                                                                                    GluLeu
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                                                                              GAGCTA
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BE733900 719 bp mRNA linear EST 15-SEP-2000 60156370F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843209 5', BE733900
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/clone=1ib="NCI_CGAP_Brn64"
/clone=1ib="NCI_CGAP_Brn64"
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/tissue_type="glioblastoma with EGFR amplification"
/tissue_type="glioblastoma with EGFR amplification"
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/note="Organ: brain; Vector: pcMV-SPORT6; Site_1: NotI;
Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT.
Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.57 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
a 167 c 220 g 137 t
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/db_xref="taxon:9606"
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US-10-082-502-19 (1-182) x BE733900 (1-719)
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Best Local Similarity:
348 CATCGCAAGAACTACGTACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                21 ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp 40
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NIH-MGC http://mgc.nc1.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
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Tissue Procurement: ATCC
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/lab_host="DH10B (phage-resistant)"
/note="Organ: placenta; Vector: pOTB7; Site_1: xhoI;
/note="Organ: placenta; Vector: pOTB7; Site_1: xhoI;
/note="Corgan: placenta; Vector: potB7; Site_1: xhoI;
/note="Organ: placenta; Vector: placenta
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/db_xref="taxon:9606"
/clone="IMAGE:3843209"
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JOURNAL COMMENT
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1 (bases 1 to 742)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov

Tissue Procurement: ATCC
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602728454F1 NIH_MGC_15 Homo sapiens
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Location/Qualifiers
                                                                                                                                                                                /tissue_type="adenocarcinoma cell line"
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/lab_host="DH10B (phage-resistant)"
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80 a 184 c 233 g 144 t 1 others
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/clone_lib="NIH_MGC_15"
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                                   2.06e-105
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                                         GACAAACTTTGCAGTAAGCGAACAGATCTTTGTGACCATGCCCTGCACATATCGCATGAT
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Search completed: March 31, 2003, 04:51:08 Job time : 1169.85 secs

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-Q-/cgn2_1/USPT0_spc01/US10082502/runat_24032003_135103_6870/app_query.fasta_1.1308
-DB-Published_Applications_NA -QFMM-fastap -SUFFIX-rnpb -MINNATCH-0.1
-LOOPCL-0 -LOOPEXT-0 -UNITS-bits -START-1 -END--1 -MATRIX-bicsum62
-TRANS-human40.cdi -LIST-45 -DCCALICH-200 -TRA_SCORE-pct -THR_MAX=100
-THR_MIN-0 -ALIGN-15 -MODE-LOCAL -UUTFM-pto -NORM-ext -HEAPSIZE-500 -MINLEN-0
-MAXLEN-200000000 -USER-US10082502_@CGN_1_1_145_@runat_24032003_135103_6870
-NCPU-5 -ICPU-3 -NO_XIEXY -NO_MAAP -LARGEQUERY -NEG_SCORES-0 -WAIT -LONGLOG
-DEV_TIMEOUT-120 -WARN_TIMEOUT-30 -THREADS-1 -SGAPOP-10 -XGAPEXT-0.5 -FGAPOP-6
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Sequence 173, Application
Publication No. US20030000
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Maus
APPLICANT: Desporge, Laure
APPLICANT: Desporger, Laure
APPLICANT: Gao, Wei-Qianc
APPLICANT: Gao, Wei-Qianc
APPLICANT: Godowski, Paul
APPLICANT: Sherwood, Stey
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                                                                  Gerritsen, Mary E. Goddard, Audrey Godowski, Paul J. Gurney, Austin L. Sharwood, Steven Smith, Victoria
                                                                                                                                                     DeForge, Laura
Desnoyers, Luc
Filvaroff, Ellen
Gao, Wei-Qiang
              Watanabe, Colin K
Wood, William
                                         Tumas, Daniel
                                                     Stewart, Timothy A.
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OR FILING DATE: 1997-09-19
OR APPLICATION NUMBER: 60/059836
OR FILING DATE: 1997-09-24
OR APPLICATION NUMBER: 60/062250
OR FILING DATE: 1997-10-17
          OR APPLICATION NUMBER: 60/065846

OR FILING DATE: 1997-11-17

OR APPLICATION NUMBER: 60/066364

OR FILING DATE: 1997-11-21

OR APPLICATION NUMBER: 60/066453

OR FILING DATE: 1997-11-24
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FILING DATE: 1997-10-17
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FILING DATE: 1998-06-04
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OR FILING DATE: 1998-03-20
OR APPLICATION NUMBER: 60/079294
OR FILING DATE: 1998-03-25
OR APPLICATION NUMBER: 60/079663
OR FILING DATE: 1998-02-27
OR APPLICATION NUMBER: 60/079728
OR APPLICATION NUMBER: 60/079728
OR APPLICATION NUMBER: 60/080165
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OR APPLICATION NUMBER: 60/081695

DR APPLICATION NUMBER: 60/073612

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APPLICATION NUMBER: 60/069694
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APPLICANT: Beresini, Maureer
APPLICANT: Desnoyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, wei-Qiang
APPLICANT: Gerritsen, Mary E
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LENGTH: 1210
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CURRENT FILING DATE: 2002-04-12
Prior Application removed - See File Wrapper
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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Gerritsen, Mary E.
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Filvaroff, Ellen
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ATGAAAGGCTGGGGTTGGCCTGGCTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCT

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US-10-123-904-173
                                                                                                                           Alignment Scores:
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APPLICANT: Beresini, Mauree
APPLICANT: Berosini, Mauree
APPLICANT: DeForge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Gao, Wei-Clang
APPLICANT: Gao, Wei-Clang
APPLICANT: Goddard, Audrey
APPLICANT: Goddwski, Paul J
APPLICANT: Godowski, Paul J
APPLICANT: Gharwood, Steven
APPLICANT: Smith, Victoria
                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/10/123,904
CURRENT FILING DATE: 2002-04-16
Prior Application removed - See File Wrapp
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
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                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C54
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Filvaroff, Ellen
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(1-182) x US-10-123-904-173 (1-1210)
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; TYPE: DNA
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                                                                   APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C160
CURRENT APPLICATION NUMBER: US/10/140,470
CURRENT FILING DATE: 2002-05-06
                                                                                                                    APPLICANT:
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APPLICANT: Beresini, Maur
APPLICANT: DeForge, Laura
                                                           Prior Application removed NUMBER OF SEQ ID NOS: 550
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
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Wood,William
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Filvaroff, Ellen
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RESULT 6
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APPLICANT:
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APPLICANT:
APPLICANT:
APPLICANT: Zhang, Zemin TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C353
                                                           APPLICANT:
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Godowski, Paul J.
Gurney, Austin L.
                                                                   Watanabe,Colin K
Wood,William
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Gerritsen, Mary E.
                                                                                            Tumas, Daniel
                                                                                                         Stewart, Timothy A.
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o. US20030027270A1
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; LENGTH: 1210
; TYPE: DNA
; ORGANISM: Homo :
US-10-175-746-173
Sequence 173, Application US
Publication No. US2003002727
GENERAL INFORMATION:
APPLICANT: Baker Kevin P.
APPLICANT: Beresini Mauree
APPLICANT: DeForge, Luc
APPLICANT: DeForge, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gao, Wei-Qiang
APPLICANT: Goddard, Audrey
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US-10-176-918-173
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CURRENT FILING DATE: 2002-06-19
Prior Application removed - See File Wrapp
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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        Beresini, Maureen
DeForge, Laura
Desnoyers, Luc
Filvaroff, Ellen
Gao, Wei-Qiang
Gerritsen, Mary E.
                                                                                     Application US/10176918 o. US20030027275A1
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APPLICANT: Zhang, Zemin; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POINTILE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: 9330RLC382
CURRENT APPLICATION NUMBER: US/10/176,918
CURRENT FILING DATE: 2002-06-20
PRIOR APPLICATION removed - See File Wrapper of NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
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Gurney, Austin L.
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smith, Victoria
Stewart, Timothy A
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APPLICANT: Beresini, Mau
APPLICANT: DeForge, Laur
APPLICANT: Desnoyers, Lu
APPLICANT: Filvaroff, El
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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CURRENT APPLICATION NUMBER: US/10/176,921

CURRENT FILING DATE: 2002-06-20
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                          CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
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Godowski, Paul J.
Gurney, Austin L.
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P333901C154
CURRENT APPLICATION NUMBER: US/10/137,865
CURRENT FILING DATE: 2002-05-03
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APPLICANT: Beresini, Mauree
APPLICANT: DeForge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Eller
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gerritsen, Mary
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CURRENT FILING DATE: 2002-05-06
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Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
Watanabe, Colin K
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Godowski, Paul J.
Gurney, Austin L.
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Gerritsen, Mary E.
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SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
ORGANISM: Home
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CURRENT APPLICATION NUMBER: US/10/142,431
CURRENT FILING DATE: 2002-05-10
                                                                                                                                Prior Application removed
NUMBER OF SEQ ID NOS: 550
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Gerritsen, Mary E.
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APPLICANT: Beresini, Mau
APPLICANT: DeForge, Laur
APPLICANT: Desnoyers, Lu
APPLICANT: Desnoyers, Lu
APPLICANT: Desnoyers, Lu
APPLICANT: Gao, Wei-Olan
APPLICANT: Gordard, Audr
APPLICANT: Goddard, Audr
APPLICANT: Godowski, Pau
APPLICANT: Godowski, Pau
APPLICANT: Sherwood, Ste
APPLICANT: Smith, Victor
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APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K
APPLICANT: Wood, William
APPLICANT: Wood, William
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C211
CURRENT APPLICATION NUMBER: US/10/143,114
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                                                     Stewart, Timothy A. Tumas, Daniel Watanabe, Colin K Wood, William
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Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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; Sequence 173, Application
; Publication No. US2003003
; GENERAL INFORMATION:
APPLICANT: Baker, Kevin P
APPLICANT: Beresini, Mau
APPLICANT: DeForge, Laux
APPLICANT: Desnoyers, Lu
APPLICANT: Filvaroff, El
APPLICANT: Gao, Mei-Qian
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; ORGANISM: Homo
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Prior Application remov
NUMBER OF SEQ ID NOS: 5
SEQ ID NO 173
LENGTH: 1210
APPLICANT:
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Gao, Wei-Qiang
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
                                   DeForge, Laura
Desnoyers, Luc
Filvaroff, Ellen
                                                              Beresini, Maureen
                                                                                          Application US/10140002 o. US20030037623A1
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RESULT 14
US-10-142-419-173
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Query Match:
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; ORGANISM: Homo
US-10-140-002-173
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Pred. No.:
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CURRENT APPLICATION NUMBER: US/10/140,002

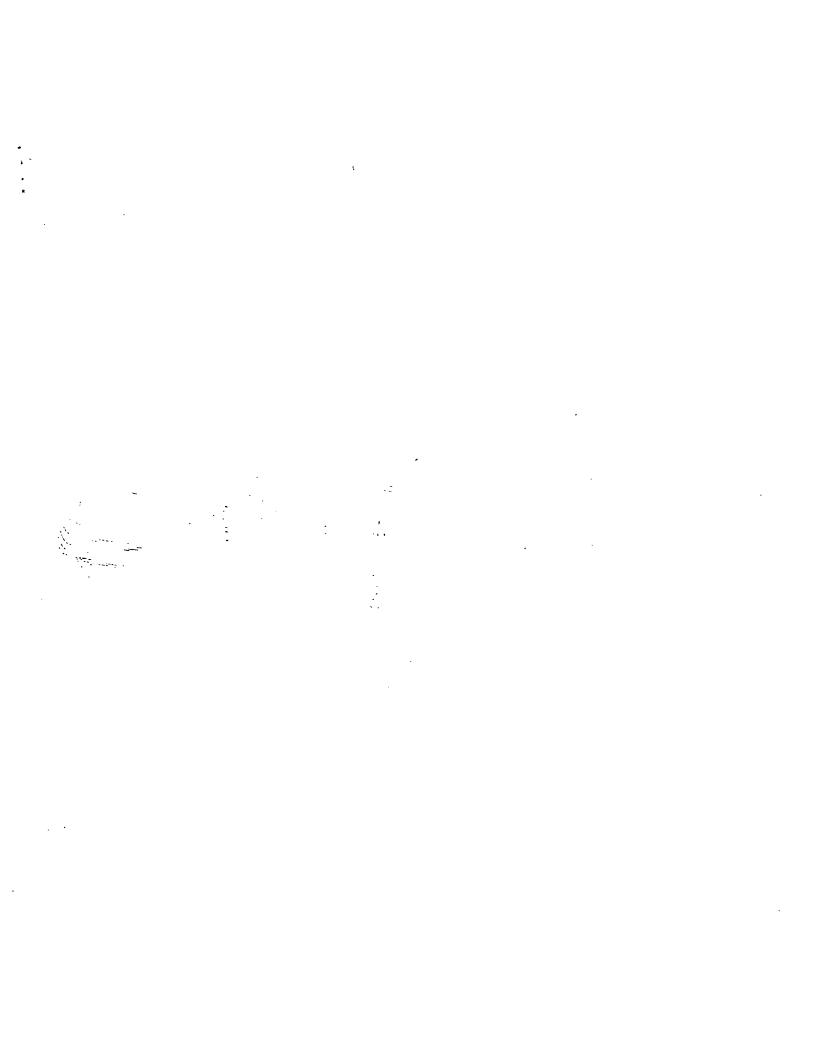
CURRENT FILING DATE: 2002-05-06
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US-10-142-419-173
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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Publication
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: 93330R1C244
CURRENT APPLICATION NUMBER: US/10/142,419
CURRENT FILING DATE: 2002-05-10
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; ORGANISM: Homo Sapien
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APPLICANT: Baker, Ke
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C38
CURRENT APPLICATION NUMBER: US/10/123,262
CURRENT FILING DATE: 2002-04-15
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 550
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Search completed: March 31, 2003, 11:59:08 Job time: 59.0233 secs



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US-08-938-105-2
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US-08-937-494-38
US-08-297-510-38
US-08-455-526-38
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Title:
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-MODEL=frame+_p2n.model -DEV=xlp
-Q-/cgn2_1/USPT0_spool_US10082502/runat_24032003_135100_6616/app_query.fasta_1.1308
-Q-/cgn2_1/USPT0_spool_US10082502/runat_24032003_135100_6616/app_query.fasta_1.1308
-DB-Issued_Patents_Na -QPWF-fastap -SUFFIX-rn1 -MINATCH-0.1 -LOOPCL-0
-LOOPEXT-0 -UNITS-bits -START-1 -END--1 -MATRIX-blosum62 -TRANS-human40.cdi
-LIST-45 -DOCALIGN-200 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALICN-15
-MODE-LOCAL -OUTFMT-pto -NORM-ext -HEADSIZE-500 -MINLEN-0 -MAXIEN-200000000
-USER-US10082502_eCGN 1_1.31_erunat_24032003_135100_6616 -NCPU-6 -TCPU-3
-NO_XLPXY -NO_MMAP -LARGEQUERY -NEG_SCORES-0 -WAIT -LONGLOG -DEV_TIMEOUT-120
-WARN_TIMEOUT-30 -THREADS-1 -XGAPOP-10 -XGAPEXT-0.5 -FGAPOP-6 -FGAPEXT-7
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Maximum
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2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
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US-09-724-864-1

US-09-131-831B-2

US-08-809-9990-1

US-09-039-637-1

US-09-322-360-1

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ALIGNMENTS

IS-09-163-285-3
Sequence 3, Application US/09163285
Patent No. 6204013
APPLICANT: Khodadoust, Mehran
TITLE OF INVENTION: NOVEL MSP-5 PROTEIN AND NUCLEIC ACID MOLECULES
AND USES THEREOF
R OF SEQUENCES:
SS
ADDRESSEE: LAHIVE & COCKFIELD, LLP
STREET: 28 State Street
CITY: Boston
STATE: Massachusetts
ALE: OTION
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION UNITS IN 100 CONTROL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TO THE TOTAL TO
FTITING NORDER: 03/03/103/203
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/090,398
FILING DATE: June 24, 1998
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEFAX: (617)742-4214
INFORMATION FOR SEQ ID NO: 3:

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
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                                                                                                                             Sequence 1, Applic
Patent No. 6204013
                                                                                                              GENERAL INFORMATION:
                                                  APPLICANT: Khodadous
TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD,
STREET: 28 State Street
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LENGTH: 744 base pairs
TYPE: nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                GlyGluSer-----SerGluLeuAspLeuGlnGlyIleArgIleAspSerAsp 128
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                                                                                                                                                                                                              CAGCCCCTACAAAATTTTCTCTGT 552
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                                                                                                                                               Application US/09163285
                                                                 Khodadoust, Mehran
WENTION: NOVEL MSP-5 PROTEIN
WENTION: AND USES THEREOF
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INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: MANDRAGOURAS, AMY E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: MN
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617),227-7400
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APPLICATION NUMBER: 60/0
FILING DATE: June 24, 19
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: FEATURE:
                                                                                                                           371
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                                                                                                                                                                                                                                                                                                                    200
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STRANDEDNESS: sing
TOPOLOGY: linear
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH:
                                                                                GlnIleAspProSerThrHis-----ArgLysAsnTyrValArgValValSerArgAsn 112
AGTCAGACCATGGCAACACTGAAAGGCCTAGTGCAGAAGGGGGGTGAAGGTGGATCTGGGG
                          GlyGluSer-----SerGluLeuAspLeuGlnGlyIleArgIleAspSerAsp 128
                                                                                                                                            CAGGTGCTG-----GATACAGGCAAGAGGAAGAGACACGTGCCTTACAGCGTTTCA
                                                                                                                                                                                                                                                                                                                  GAGGAGGACGATGACACAGAACGCTTGCCCAGCAAATGCGAAGTGTGTAAGCTGCTGAGC 259
                                                                                                                                                                                                                                                                                                                                             ArgSerGlnAsp------LeuHisCysGlyAlaCysArgAlaLeuVal 35
                                                                                                                                                                                                                                                                                                                                                                                TTGGGAATATTGCTTTTTTTTTGGCCGTGCACGAGGCTTGGGCTGGGATGTTGAAG
                                                                                                                          GAGACAAGGCTGGAAGAGGCCTTAGAGAATTTATGTGAGCGGATCCTGGACTAT-----
                                                                                                                                                                                                                      SerPheArgIleAsnProAspGlySerGlnSerValValGluValProTyrAlaArgSer
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                                                                                                                                                                                                                                                                                 AspGluLeuGluTrpGluIleAlaArgValAsp---ProLysLysThrIleGlnMetGly
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Conservative:
Mismatches:
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	·	Sequence 14, Application US/09724864 Patent No. 6380362 GENERAL INFORMATION: APPLICANT: Watson, James D. APPLICANT: Murison, James G. APPLICANT: Murison, James G. APPLICANT: Murison, James G. FITLE OF INVENTION: by the polynucleotides and methods for their use. FILE REFERENCE: 11000.1050U1 CURRENT APPLICATION NUMBER: US/09/724,864 CURRENT FILING DATE: 2000-11-28 PRIOR APPLICATION NUMBER: U.S. No. 6380362 60/171,678 PRIOR APPLICATION NUMBER: U.S. No. 6380362 60/171,678 PRIOR FILING DATE: 1999-12-23 SOFTWARE: FastSEQ for Windows Version 4.0 LENGTH: 915	Oy 129 IleSer
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HATTORNEY/AGENT INFORMATION: AMAE: Frommer, William S. REGISTRATION NUMBER: 454310-2570 TELECOMMUNICATION NUMBER: 454310-2570 TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 840-3333 TELEPHONE: (212) 840-0712 TELEYAX: (212) 840-0712 TELEYAX: 455066 CURTMS INFORMATION FOR SEQ ID NO: 10: SEQUENCE CHARACTERISTICS: LENGTH: 5181 base pairs TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear US-08-257-073-10 Alignment Scores: Pred. No.: Pred. No.: \$7.00 Matches: \$60 Percent Similarity: 43.95% Best Local Similarity: 22.93% Mismatches: 58 Ouery Match: 30 DB:: TOPOLOGY: 10 Alignation: 30 Gaps: 7	COUNTRY: UNITED STATES OF AMERICA ZIP: 10036 COMPUTER READABLE FORM: MEDIUM TYPE: FLOPPY disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/257,073 FILING DATE: 09-JUN-1994 CLASSIFICATION LOTA: APPLICATION NUMBER: US 08/075,783 FILING DATE: 11-JUN-1993 PRIOR APPLICATION NUMBER: US 07/852,305 FILING DATE: 18-MAR-1992 PRIOR APPLICATION NUMBER: US 07/852,305 FILING DATE: 18-MAR-1992 PRIOR APPLICATION NUMBER: US 07/852,305 FILING DATE: 10-MAR-1992 PRIOR APPLICATION NUMBER: US 07/852,305	RESULT 4 US-08-257-073-10 Sequence 10, Application US/08257073 Patent No. 5766597 GENERAL INFORMATION: APPLICANT: Paoletti, Enzo APPLICANT: de Taisne, Charles APPLICANT: Tine, John A. TITLE OF INVENTION: MALARIA RECOMBINANT POXVIRUS VACCINE NUMBER OF SEQUENCES: 143 CORRESPONDENCE ADDRESS: ADDRESSEE: Curtis, Morris & Safford, P.C. STREET: 530 Fifth Avenue, 25th Floor CITY: New York STATE: New York	392 ATCAGCGTGATG. 140 IleValGluGlu ::: 452 TACCTGGGTGAG 159 VallysAspLys: ::::: 512 CTGGAGGCGCTG 179 HisAspGluLeu 179 HisAspGluLeu

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US-09-131-831B-2
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GENERAL INFORMATION:
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               COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: WOOTSDET fect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/131,831B
FILING DATE: 11-Aug-1998
CLASSIFICATION DATA:
APPLICATION UDATA:
APPLICATION NUMBER: 08/809,999
FILING DATE: 9-Apri1-1997
APPLICATION NUMBER: 08/316,231
FILING DATE: 30-September-1994
ATTORNEY/AGENT INFORMATION:
NAME: Hanson, No. 639149man D.
REGISTRATION NUMBER: 30,946
REFERENCE/DOCKET NUMBER: LUD 5386.3
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Coulie, Pierre; Ikeda, Hideyuki; Boon-Falleur, Thierry
TITLE OF INVENTION: Isolated Nucleic Acid Molecules
Coding For Tumor Rejection Antigen Precursors DAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaAspAsn------ValLysAspLysLeuCysSerLysArg
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                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: New York City
STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 666 Fifth
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                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
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     (212)
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Best Local Similarity:
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                                                                                          Sequence 1, Application US/08809999D Patent No. 6013765
GENERAL INFORMATION:
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SEQUENCE CHARACTERISTICS:
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No.:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                       APPLICANT: Coulie, Pierre; Ikeda APPLICANT: Boon-Falleur, Thierry
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SEQUENCE DESCRIPTION: SEQ I
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                                                                                                                                                                                                              GAA 717
                                                                                                                                                                                                                                                 Glu 145
                                                                                                                                                                                                                                                                                                                                                                 GTACTACGCCTGTGCTGAAGAAGCTGAAGATTTTTGCAATGCCCATGCAG-----
                                                                                                                                                                                                                                                                                                                                                                                                   TyrValArgValValSerArgAsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArg 124
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGAGCCAGAAGCAGCTCAGCCCATGACAAAGAAGCGAAAAGTAGATGGTTTGAGCACA 498
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                                                                                                                                                                                                                                                                                                                          IleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIleValGluGluTyr 144
                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCTGTGATGAATTGTTCTCCTAC-----CTCATTGAGAAAGTGAAGCGAAAGAAAAAT 612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----TrpGluIleAlaArgValAspProLysLys 49
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STRANDEDNESS: double
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                                                                          Ikeda, Hideyuki;
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Matches:
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Best Local Similarity:
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INFORMATION FOR SEQ ID NO:
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FILING DATE: 30-September-1994
ATTORNEY/AGENT INFORMATION:
NAME: Hanson, No. 6013765man D.
REGISTRATION NUMBER: 30,946
REFERENCE/DOCKET NUMBER: LUD 5386.1
TELECOMMUNICATION INFORMATION:
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PRIOR APPLICATION DATA:
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ADDRESSEE: Fulbright
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STRANDEDNESS: double
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OPERATING SYSTEM:
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                                                                                                                                            AACTCTCATCAGGACTTCTGGACTGTATGGTCTGGAAACAGGGCCAGTCTGTACTCATTT
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                                                      ValValGluValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGlu---
                                                                                                                                                                                                     CTCCTTGCCCAGGAGGTTCGCCCCAGGAGGTGGAAACTTCAAGTGCTGGATTTACGGAAG
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666 Fifth Avenue
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RESULT 7
US-09-069-637-1
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Best Local Similarity:
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US-10-082-502-19 (1-182) x US-09-069-637-1 (1-1554)
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                              TELEFAX: (212) 838-388
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                            TELEPHONE: (212) 688-9200
                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 30-Septembe ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
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APPLICANT: Boon-Falleur, Thierry
TITLE OF INVENTION: Isolated Nucleic Acid Molecules
TITLE OF INVENTION: Coding For Tumor Rejection Anti:
                                                                                                      No . .
                                                                                                                                                                                            MOLECULE TYPE:
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MEDIUM TYPE: Diskette,
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REGISTRATION NUMBER: 30,
REFERENCE/DOCKET NUMBER:
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OPERATING SYSTEM:
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APPLICATION NUMBER:
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                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
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RESULT 8
US-09-322-360-1
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Patent No. 6297050
GENERAL INFORMATION:
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SOFTWARE: WORDERFIECT
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskette,
                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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CORRESPONDENCE ADDRESS
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                    ATTORNEY/AGENT INFORMATION:
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                                                                                            CLASSIFICATION:
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STATE: New York
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     NAME:
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   Hanson,
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Best Local Similarity:
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                                Sequence 1, Application US/09131831B Patent No. 6339149
GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1554 base pair
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No.:
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REFERENCE/DOCKET NUMBER: URFERENCE/DOCKET NUMBER: UTELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 318-3000
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Coulie, Pierre; Ikeda,
Falleur, Thierry
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Matches:
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Best Local Similarity:
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INFORMATION FOR SEQ ID NO:
     498 CCAGAGCCAGAAGCAGCTCAGCCCATGACAAAGAAGCGAAAAGTAGATGGTTTGAGCACA
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APPLICATION NUMBER: 08/809,999
FILING DATE: 9-April-1997
APPLICATION NUMBER: 08/316,231
FILING DATE: 30-September-1994
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MEDIUM TYPE: Diskette, 3.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 318-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: Hanson, No. 6339149man D.
REGISTRATION NUMBER: 30,946
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OPERATING SYSTEM: PC-DOS
SOFTWARE: Wordperfect
CURRENT APPLICATION DATA:
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                                                                                                                                   CTCCTTGCCCAGGAGGTTCGCCCCAGGAGGTGGAAACTTCAAGTGCTGGATTTACGGAAG
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STRANDEDNESS: double
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 1554 base pairs
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Coding For Tumor Rejection Antigen Precursors DAGE and
Uses Thereof
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Conservative:
Mismatches:
Indels:
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Percent Similarity:
Best Local Similarity:
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Patent No. 5830753
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                                                                                                                                                                                                                                                              TELEFAX: (212) 838-3884
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08,
FILING DATE: 30-September:
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Hanson, No. 5830753m
REGISTRATION NUMBER: 30,94
REFERENCE/DOCKET NUMBER: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Coulie, Pierre APPLICANT: Boon-Falleur, TITLE OF INVENTION: Isolai TITLE OF INVENTION: Uses TITLE OF INVENTION: Uses
                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 688-9200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Wordperfect
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskette,
                                                                                                                                                                    FEATURE:
                                                                                                                                                                                MOLECULE TYPE: nucleic
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TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
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OPERATING SYSTEM:
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                                                                                                                  OTHER INFORMATION:
                                                                                                                                                 NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
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Boon-Falleur, Thierry
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                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/08809999D Patent No. 6013765
                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Coulie,
                                                                 OPERATING SYSTEM: PC-DOS
SOFTWARE: Wordperfect
CURRENT APPLICATION DATA:
                                                                                                                                      COUNTRY: USA
ZIP: 10103
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 mb
                                                                                                                                                                                                                                                                                                  APPLICANT: Boon-Falleur, Thierry
TITLE OF INVENTION: Isolated Nucleic Acid Molecules
TITLE OF INVENTION: Coding For Tumor Rejection Anti:
TITLE OF INVENTION: Uses Thereof
                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fulbright & Jaworski,
STREET: 666 Fifth Avenue
       PRIOR APPLICATION DATA:
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                       APPLICATION NUMBER: US/08/809,999D FILING DATE: 9-April-1997 CLASSIFICATION: 435
                                                                                                                        COMPUTER: IBM PS/2
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                                                                                                                                                                                                                                                                                                                                                                                Coulie, Pierre; Ikeda, Hideyuki;
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                                   RESULT 12
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Best Local Similarity:
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FILING DATE: 30-September-1994
ATTORNEY/AGENT INFORMATION:
NAME: Hanson, No. 6013765man D.
REGISTRATION NUMBER: 30,946
REFERENCE/DOCKET NUMBER: LUD 53
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TOPOLOGY: lin
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                                                                                                                                                                                                         GTACTACGCCTGTGCTGAAGAAGCTGAAGATTTTTTGCAATGCCCATGCAG------
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2, Application US/09069637
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Matches:
Conservative:
Mismatches:
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Gaps:
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US-10-082-502-19 (1-182) x US-09-069-637-2 (1-2148)
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US-09-069-637-2
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. 6022692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY AGENT INFORMATION:
NAME: Hanson, No. 6022692man D.
REGISTRATION NUMBER: 30,946
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APPLICATION NUMBER: US/08/809,9

FILING DATE: 9-APr11-1997

APPLICATION NUMBER: 08/316,231

FILING DATE: 30-September-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                       614 AACTCTCATCAGGACTTCTGGACTGTATGGTCTGGAAACAGGGCCAGTCTGTACTCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 688-9200
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CURRENT APPLICATION DATA:
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APPLICANT: Boon-Falleur, Thierry
TITLE OF INVENTION: Isolated Nucleic Acid Molecules
TITLE OF INVENTION: Coding For Tumor Rejection Antigen Precursors DAGE and Uses
                    57
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                                                                                                                                                                                                  21 ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGlu---
                                                                                                                                                                                                                                                         STRANDEDNESS:
TOPOLOGY: 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/09/069,637
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Conservative:
Mismatches:
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                                                    ; NAME/KEY: US-09-322-360-2
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US-09-322-360-2
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TELEFAX: (212) 752-595
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                     FEATURE:
                                                                                                 MOLECULE TYPE:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Wordperfect CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskett
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TITLE OF INVENTION:
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TYPE: nucleic acid
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STATE: New York
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Coding For Tumor Rejection Antigen Precursors DAGE and
Uses Thereof
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Best Local Similarity:
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                                                                                                                    GENERAL INFORMATION:
APPLICANT: FLEISCHAAN, Robert D.
APPLICANT: WHITE, Owen R.
APPLICANT: WHITE, Owen R.
APPLICANT: VENTER, John C.
TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN ANALYSIS IN MYCOBACTERIUM TITLE OF INVENTION: DIBERCULOSIS
FILE REFERENCE: 24366-20007.00
CURRENT APPLICATION NUMBER: US/09/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/09103840A Patent No. 6294328
OTHER INFORMATION: CDC 1551
OTHER INFORMATION: "n" bases at various positions throughout the sequence
OTHER INFORMATION: represent a, t, c or g
-09-103-840A-2
                                                                    TYPE: DNA ORGANISM: Mycobacterium tuberculosis
                                                                FEATURE:
                                                                                                             LENGTH: 4403765
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Percent Similarity:
Best Local Similarity:
Query Match:
DB:
; ORGANISM: Mycobacterium tuberculosis ; OTHER INFORMATION: H37Rv US-09-103-840A-1
                                                                                                                                                   APPLICANT: FLEISCHMAN, ROBERT D.
APPLICANT: WHITE, Owen R.
APPLICANT: FRASER, Claire M.
APPLICANT: VENTER, John C.
TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN
TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-20007.00
CURRENT APPLICATION NUMBER: US/09/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
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US-09-103-840A-1/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db 4381881 GCCCATGACATCGCGGTGGTGGTCGACCAGTTCAGCGGGGAAGTG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Db 4382193 CGCAGCGCGGGCACGCAGTTCGCGCTGACTGAGATTCAGTCGACGGCGGGGCCGATGGGC 4382134
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                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Application US/09103840A Patent No. 6294328
                                                                                                          SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4382280 AAGGGCTGGGGTGGGTGGCCCCGTATATCGGGATGATC-----TGGCCGAAC 4382233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4381986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4382013 TATGCCGCCCGCATCGAC---GCGGTGCAT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4382073 TACGCCAGCACCACCGCTGTCGTGGGCCAATGCCACCTAGCTGGCGGCCCAGCTAGACGCC 4382014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4382133 GTTATTCGCGCCCAGCAGCTCCCGGAGGCGGGGCTGATCGAGTCGGCGTTTGCTGACGCG 4382074
                                                                                                                                 SOFTWARE: PatentIn Ver. 2.1
                                                                    TYPE: DNA
                                                                                      LENGTH: 4411529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              132 ThrLeuLysPheAlaCysGluSerIleValGluGluTyrGluAspGluLeu------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      162 LysLeuCysSerLysArgThrAspLeuCysAspHisAla 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              112 AsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArgIleAspSerAspIleSerGly 131
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerPheArgIleAsnProAspGlySerGlnSerValValGluValProTyrAlaArgSer 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ---ArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -ccgccgctcctggatttgttgcc---cgcatctgcgatccgctgaccggg 4381939
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ASP 161 GAC 4389596	Qy 149	ם ם
148 : 4389644	Qy 132 ThrLeuLysPheAlaCysGluSerIleValGluGluTyrGluAspGluLeu 148	a a
31 4 389701	Qy 112 AsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArgIleAspSerAspIleSerGly 131 ::::::	U 0
11 4389749	Qy 92 TyrGlyGluGlnIleAspProSerThrH1sArgLysAsnTyrValArgValValSerArg 111	0 0
1 4389776	Qy 75 GluAlaHisLeuThrGluLeuLeuGluGluValCysAspArgMetLysGlu 91	م ت
4 4389836	Qy 55 SerPheArgIleAsnProAspGlySerGlnSerValValGluValProTyrAlaArgSer 74	0 0
4 4389896	Qy 41GlulleAlaArgValAspProLysLysThrIleGlnMetGly 54 :::	0 0
0 4389956	Qy 22ArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp 40	U 0
1 4389995	Qy 2 LysGlyTrpGlyTrpLeuAlaLeuLeuLeuGlyValLeuLeuGlyThrAlaTrpAlaArg 21	<u> </u>
	US-10-082-502-19 (1-182) x US-09-103-840A-1 (1-4411529)	ū
	Alignment Scores: 8.93e+04 Length: 4411529 Pred. No.: 8.93e+04 Length: 441529 Score: 82.50 Matches: 44 Score: 94.418 Conservative: 34 Best Local Similarity: 22.80% Mismatches: 64 Ouery Match: 8.60% Indels: 51 DB: Gaps: 12	≪ & & & & & & & & & & & & & & & & & & &

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Listing first 45 summaries
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-MODEL=frame+_p2n.model
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
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959
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/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1981.DAT:*
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Human secreted pro	AAA16621	21	1462	14.2	130.5	ŕ	
•	AAX78923	20	1457	14.2	136.5	4 1	
	AAF93914	22	1419	14.2	136.5	4.0	
T abecitic	AAC90704	22	747	14.2	136.5	4.2	
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prosopnila melanog	AAZ49678	21	744		136.5	40	
prosopnila melanog	ABL21470	23	3110	14.6	140	39	
	ABI:16482	23	3274	15.1	145	38	
Drosophila melanog	ABI,16484	2 :	2750	15.1	145	37	
Arabidopsis thalia	ABI.16485	2 1	750	5	145	36	
Human secreted pro	ABAU9488	2 2	786	<u>ص</u> :	157	35	
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- 3	ABA07340	22	2724		308	3 2	
pancrea	AAS32768	22	2532	32.1	308	2 29	
020T	ABA07341	22	2532		308	28	
Sequenc	AAX22130	20	1085		347	27	
ressed	AA7.08285	21	415	37.2	357	26	
secrete	AAY06971	200	415	. 7	357	25	
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Zsig9 gene	AAZU8284) K	719	7:	361	23	
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_	AAX97884	20	714	97.1	931	12	
Sections	AAS21330	22	1210	7.	938	11	
	AAX22112	20	1180	97.8	938	10	
Nucleotide sequenc	ABK09770	24	814	7.	ω	9	
cDNA encoding tran	ABI./1005	2 1	814	7	ω	80	
Human transmembran	AA630367) (814	7:	ωı	7	
Zsig9 gene	AAZ08293	٦ ٢ ٧ ٢	81.0	٦:	w	σ,	
Human secretory pe	3300000	2 6	900	7	٠ س	رب د	
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ouse se	0697	20	1069	•	9 50	ა ⊢	
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	SUMMARIES			,			

AAX06970
ID AAX06970;
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AC AAX06970;
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AC AAX06970;
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DT 10-MAY-1999 (first entry)
XX

Mouse secretory peptide-9 (Zsig9) orthologue cDNA.
XX

XX

KW Secretory peptide-9; Zsig9; orthologue; mouse; tumour marker;
XX

KW cancer; therapy; diagnosis; growth enhancer; ss.

XX

XX

OS Mus sp.
XX

XX

CDS Mus sp.

Location/Qualifiers
FT CDS 358.996

FT /*tag= a

ALIGNMENTS

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                                                                                                                                                                                                                                                                     This cDNA clone encodes novel mouse secretory peptide-9, or zsig9 (see AAW88476), an orthologue of novel human zsig9 (see AAW88469). Human zsig9 is overexpressed in a number of tumours including brain, liver, lung, oesophageal, stomach, colon, rectal, thyroid and lymphoma tumors, and thus can be used as an indicator for cancer. The invention provides polynucleotides (see AAW6868-70) encoding zsig9 polypeptides (see AAW88469-77) including mature polypeptides, other processed forms, variants and the mouse orthologues. The zsig9 gene, or probes derived from it, can be used to determine if zsig9 is present on chromosome 10, and if a mutation has occurred. Antibodies raised against zsig9 can be used as diagnostic agents to determine the presence of zsig9, and thus the presence of cancer. They can also be labelled with radioisotopes or fused with toxins and used to treat tumours which overexpress zsig9. Antisense nucleotides derived from zsig9 colar or also be used to inhibit the growth of tumour cells. Zsig9 proteins can be used to enhance the growth or development of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-JUN-1998;
03-JUL-1997;
03-JUL-1997;
03-JUL-1998;
19-MAY-1998;
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                                                                                                                                                                                                            No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New mammalian secretory peptide-9 (Zsig9) - used as a growth enhancer for placenta, liver and heart, and as an indicator
                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-JUL-1998;
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                                                                                                                                                                                                                                                                  heart or liver.
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                                                                                                                                                                                                                                                                                                                           Mouse ortholog
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                                                     (ZYMO ) ZYMOGENETICS INC
                                                                       19-MAY-1998;
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/note= "Overexpressed i
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present DNA sequence is an ortholog encoding the secretory protein-9, 28199 derived from mouse. It is overexpressed in tumours. Antagonists, antibodies and antisense nucleotides to Z8199 are useful for detecting and treating tumours. The antagonist may be an antibody or receptor to Z8199 and it may be radio-labelled or fused to a polypeptide toxin. It can be used for down regulating the overexpression of Z8199. The gene sequence can be used as nucleic acid probes to detect RNA encoding Z8199. The Z8199 sequence facilitates improved diagnostic and therapeutic techniques for detecting and treating cancers, especially of the brain,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1069 BP;
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CGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGG

MetLysGlyTrpGlyTrpLeuAlaLeuLeuLeuGlyValLeuLeuGlyThrAlaTrpAla

Query Match: DB:

Best Local Similarity: Percent Similarity:

9.09e-100 938.00 98.35% 97.25% 97.81%

Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:

546 177 2 3

Alignment Scores:

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165 G; 116

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US-10-082-502-19 (1-182) x AAZ38326 (1-546)

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This sequence represents the coding sequence of human cDNA clone HP10390 which encodes a 20 kD protein with one putative transmembrane domain in the N-terminus. The cDNA was isolated from a human stomach cancer cell line cDNA library. The protein has no homology with any known protein. The protein may be used to raise specific antibodies, as assay reagents, as diagnostic tissue markers, for the isolation of cognate receptors, ligands and binding proteins, and as biologically active agents. Nucleotides encoding the protein may be used as primers and probes or antisense molecules, and in gene therapy. Cells transformed with these nucleotides may be used to screen for agonists and antagonists which are potentially useful therapeutically.
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                                                                                                                                                                                                                                          Human proteins with transmembrane domains, inv
proliferation and differentiation, useful for
                                                                                                                                                                                                                                                                                                                               Kato
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/note= "No stop codon given in the specification"
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AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu 80 GAAATTGCCCCAGGTGGACCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCA

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                                                (ZYMO ) ZYMOGENETICS
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New mammalian secretory peptide-9 (Zsig9) - used as a growth enhancer for placenta, liver and heart, and as an indicator of cancer

Claim 2; Page 73-74; 85pp; English

This cDNA clone encodes human secretory peptide-9, or zsig9, variant (see AAW88474). Zsig9 (see also AAW88469) is overexpressed in human brain, liver, lung, ossophageal, stomach, colon, rectal, chuman brain, liver, lung, stomach, colon, rectal, stomach, colon, rectal, lung, stomach, colon, rectal, stomach, colon, rectal, stomach, colon, rectal, stomach, colon, rectal, lung, stomach, colon, rectal, stomach, colon, rectal, lung, stomach, colon, rectal, stomach, colon, rectal, lung, stomach, colon, rectal, lung, stomach, colon, rectal, stomac heart or liver. 'n

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Sequence 806 BP; 229 A; 183 Ç 232 G; 160 T; 2 other;

Percent Similarity:
Best Local Similarity:
Query Match: Alignment Pred. No.: Score: Scores: 1.53e-99 938.00 98.35% 97.25% 97.81% Length: Matches: Conservative: Gaps: Mismatches: Indels: 806 177 2 3 0 0

US-10-082-502-19 (1-182) x AAX06969 (1-806)

643	GACAAACTTTGCAGTAAGCGAACAGATCTTTGTGACCATGCCCTGCACATATCGCATGAT	Db 584	
180	AspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisArgSerHisAsp	Qy 161	
583	GTGGAGGAATACGAGGGATGAACTCATTGAATTCTTTTCCCGAGAGGCTGACAATGTTAAA	Db 524	
160	ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys	Оу 141	
523	CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT	Db 464	
140	GlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIle	Qy 121	
463	CATCGCAAGAACTACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTA	Db 404	
120	HisArgLysAsnTyrValArgValValSerArgAsnGlyGluSerSerGluLeuAspLeu	Qy 101	
403	CTGCTGGAGGAGATATGTGACCGGATGAAGGAGTATGGGGGAACAGATTGATCCTTCCACC	Db 344	
100	81 LeuLeuGluGluValCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThr	Qy E	
343	GATGGCAGCCAGTCAGTGGTGGAGGTGCCTTATGCCCGCTCAGAGGCCCCACCTCACAGAG	Db 284	
08		Qy	
283	GAAATTGCCCAGGTGGACCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCA	Db 224	
60	_	Qy ,	
223	CGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGCTCTGGTGGATGAACTAGAATGG	Db 164	
40	21 ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp	Qy :	
163	ATGAAAGGCTGGGGTTGGCTGGCCTGCTTCTGGGGGCCCTGCTGGGAACCGCCTGGGCT	Db 104	
20		Qy	

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182

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RESULT 5
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                                  The present DNA sequence is a gene encoding the variant of the secretory protein-9, zsig9 that arises due to alternative splicing, allelic variation or silent mutations that result in amino acid changes. This sequence is mapped to the human chromosome 12q15 region. It is overexpressed in tumours. Antagonists, antibodies and antisense nucleotides to zsig9 are useful for detecting and treating tumours. The antagonist may be an antibody or receptor to zsig9 and it may be radiolabelled or fused to a polypeptide toxin. It can be used for down regulating the overexpression of zsig9. The gene sequence can be used as nucleic acid probes to detect RNA encoding zsig9. The zsig9 sequence facilitates improved diagnostic and therapeutic techniques for detecting and treating cancers, especially of the brain, liver, stomach, lymphoma, etc., at an early stage.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 33-35;
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/product= "Zsig9 secretory protein
/note= "Overexpressed in tumours"
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Alignment Scores

Sequence 806

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RESULT 6
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Best Local Similari
Query Match:
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                    W09955862-A2
                                                                                                        HP10390; transmembrane domain; stomach cancer cell; antibody; assay reagent; diagnostic marker; primer; probe; antisense; gagonist; antagonist; ligand; therapeutic; ds.
                                                                                                                                                    Human transmembrane
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Matches:
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Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human proteins with transmembrane domains, proliferation and differentiation, useful inflammation -
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DB; AAY52391.
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31-0CT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Expressed cytotoxic
                                                                                                                         Identifying modulators of a cancer-related gene to screen agents preventing or treating cancer comprises detecting a difference in expression of cancer-linked genes in the presence or absence of tompounds
                                                                                                        Claim 1; Page 43;
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P-PSDB; AAU97063.
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T lymphocyte; chemotherapy; cytos;
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2000US-239297P.
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The invention relates to modulators of a cancer-related genes. Also described are: (1) processes for identifying an anti-neoplastic agent comprising contacting a cell exhibiting neoplastic activity with a compound first identified as a cancer related gene modulator, and detecting a decrease in the neoplastic activity. (2) a process for determining the cancerous state of a cell by determining an increase the level of expression of at least one gene, where an elevated expression relative to a known non-cancerous cell indicates a cancerous state or potentially cancerous state. The anti-neoplastic agent is useful for treating cancer or for protecting an animal against cancer The immunogenic composition is also useful for treating cancer in an

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                               Antibody; antigen;
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                                                                                                                    ABL41995
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                       transmembrane domain protein; HP10390; gene;
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                                                                                                                                                                                                                                                                                                                                         The specification describes a method of antibody preparation. The method comprises inoculating an animal with a vector expressing a fusion protein having an antigen protein fused to the C-terminal side (extracellular) of a transmembrane domain protein (the N-terminal side of which is intracellular), and then isolating and purifying the antibody from the animal. The antibodies can be used as drugs, vaccines, diagnostic reagents and laboratory reagents. The present sequence encodes a polypeptide, designated HP10390, which was used in the course of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antibody preparation by inoculation of an animal with a vector expressing a fusion protein of an antigen on the C-terminal side transmembrane domain for use as drugs, diagnostic reagents and
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polypeptide comprising a portion of an ovarian tumour protein. The sequences of the invention are useful for stimulating an immune response can for treating ovarian cancer in a patient. An antigen presenting cell that expresses the sequences is useful for treating ovarian cancer by incubating CD4+ and/or CD8+ T cells isolated from a patient. The T cells can then be proliferated and administered to the patient to inhibit the development of cancer. The DNA sequences are useful as probes or primers for nucleic acid hybridisation, to direct expression of a polypeptide in appropriate host cells. Detecting the presence of a cancer in a patient convolves obtaining a biological sample from the patient, contacting the biological sample with an agent that binds to the protein, detecting the protein to a predetermined cut-off value and determining the presence of cancer. Sequences ABK09464-ABK09802 represent PCR primers and CDNA molecules encoding ovarian tumour proteins of the invention.
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21-JUN-2000;
03-AUG-2000;
01-MAR-2001;
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                                                                                                                                                                                                 The invention relates
                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                             New isolated polynucleotide encoding ovarian tumour protein, useful for de
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                        Human; secreted protein; gene therapy; protein therapy; tissue; cancer tumour; neurodegenerative disorder; leukaemia; autoimmune disease; AII developmental abnormality; foetal deficiency; Alzheimer's disease; cognitive disorder; schizophrenia; immunological disorder; mood disord immune deficiency disease; respiratory disorder; arthritis; skeletal; haematopoietic disorder; neural; osteoporosis; metabolic disorders; haematopoietic disorder; anatorine dastrointestinal; asthma; diagnosis; ds.
                                                                                                          Human secreted
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99WO-US31243
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2000WO-US04414
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99WO-US28564.
99WO-US28565.
99US-0170262.
99WO-US30095.
99WO-US30911.
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breast; prostate; cervical; tumour necrosis factor-alpha; TMF-alpha; cartilage; ear; proliferation; glucose; free fatty acid; skeletal muscle; adipocyte; A-peptide; factor VIIA; gene therapy; ss.
                                                                                                                                24-OCT-2001 (first entry)
                                                                                                                                                                                                       AAS21330 standard; cDNA; 1210
                                                                                                                                                                                                                                                                                                                                           GACAAACTTTGCAGTAAGCGAACAGATCTTTGTGACCATGCCCTGCACATATCGCATGAT
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                                                                                            cDNA sequence encoding
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22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
10-NOV-2000;
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PRO
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DB; AAU12258.
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Stewart TA,
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ME, Goddard
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2000WO-US14042.
2000WO-US14941.
2000WO-US15264.
2000WO-US30873.
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Tumas D,
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1, Godowski PJ, Gurney AL, Sh
Rumas D, Watanabe CK, Wood WI,
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                 AAX97813-X97906 represent extended cDNA's which encode novel human secreted proteins (see AAY36129-Y36222) and which have cytostatic, thrombotic and osteopathic activity. The extended cDNAs can be used to express secreted proteins or parts of them or to obtain antibodies capable of binding to the secreted proteins. They may also be used in diagnostic, forensic, gene therapy and chromosome mapping procedures. Uses also include design of expression vectors and secretion vectors.
Sequence
                                                                                                     Claim 1;
                                                                                                                                                                                                                                                   13-NOV-1997;
17-DEC-1997;
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98US-0081563.
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therapy; chromosome
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Alignment Scores: Pred. No.:

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RESULT 13
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ID ABK36
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XX O8-MA
XX Human
KW Infec
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Percent Similarity:
06-APR-2000;
                29-MAR-2001;
                                                                               immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; allergic condition; neurodegenerative disorder; liver fibrosis; coagulation disorder; gene therapy; antimicrobial; tumour; cancer; hepatotropic; immunosuppressive; antirheumatic; gene
                                  18-OCT-2001
                                                                   Homo sapiens.
                                                                                                                        Human secreted
                                                                                                                                        cDNA sequence
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                                                                                                                                                                             ABK36007;
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                                                                                                                                                                                                                                                                      AspLysLeuCysSerLysArgTbrAspLeuCysAspHisAlaLeuHisArgSerHisAsp
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2000US-195605P
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               2001WO-US10232
                                                                                                                                                        (first entry)
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                                                                                                                                    #398 encoding novel human secreted
                                                                                                                      protein;
                                                                                                          otein; hyperproliferative disorder; autoimmune disorder; blood disorder; inflammatory disorde
                                                                                                                                                                                            CDNA;
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Conservative:
Mismatches:
Indels:
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Jacobs K,
Merberg D,
                                               (GEMY ) GENETICS INST
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Merberg D, Clark HF, WPI; 2002-179322/23 Treacy M, Fechtel K, Lavallie EF
, Agostino N
, Howes SH, e ER, Lino MJ, Bowman, au, Resnick RJ, Collins-Racie LA, Evar Bowman MR, Spaulding esnick RJ, Gulukota K, Evans (Graham Wong ј GG; ≀JR;

Six hundred and twenty three polynucleotides derived from a human tissue sources which encode secreted proteins, useful treating immune deficiencies and disorders such as autoimmur autoimmune for disorders

Claim 1; Page 297; 393pp; English.

CC which encode human secreted proteins. The cDNA sequences CC derived from a variety of human tissues. The invention also provides CC a method for producing proteins from these polynucleotide sequences. CC The proteins are useful for identifying compounds that modulate their CC useful for treating diseases such as hyperproliferative disorders (e.g. cencer) immune deficiency disorders (e.g. severe combined CC immunodeficiency (SCID)), autoimmune disorders (e.g. severe combined CC disorders (e.g. arthitis), infectious disorders (e.g. multiple CC disorders (e.g. arthitis), infectious disorders (e.g. hepatitis), cc allergic conditions (e.g. asthma), neurodegenerative disorders (e.g. hizbeimer's disease), liver fibrosis, coagulation disorders (e.g. invention are also useful in gene therapy. ABK35610-ABK36232 represent CC secreted proteins.

Sequence 657 ВP; 177 Α, 149 Ç 185 9 146 T; 0 other;

Alignment Pred. No.: Percent Similarity:
Best Local Similarity:
Query Match: Score: Scores: 8.91e-95 896.00 97.19% 95.51% 93.43% Length:
Matches:
Conservative:
Mismatches:
Indels: Gaps: 657 170 3 5 0

US-10-082-502-19 (1-182) x ABK36007 (1-657)

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13-NOV-1997;
17-DEC-1997;
09-FEB-1998;
13-APR-1998;
10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                               AAX97813-X97906 represent extended cDNA's which encode novel human secreted proteins (see AAY36129-Y36222) and which have cytostatic, thrombotic and osteopathic activity. The extended cDNAs can be used to express secreted proteins or parts of them or to obtain antibodies capable of binding to the secreted proteins. They may also be used in diagnostic, forensic, gene therapy and chromosome mapping procedures. Uses also include design of expression vectors and secretion vectors.
                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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21 ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGlu-LeuGluTr
                                                                            MetLysGlyTrpGlyTrpLeuAlaLeuLeuLeuGlyValLeuLeuGlyThrAlaTrpAla
                                                   1999-347472/29.
DB; AAY36153.
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                                                                                                                                                  (1-182) x AAX97837 (1-832)
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98US-0074121.
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                                                                                                                                                                                                                                                                                                                                                                                          243 G;
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                                                                                                                                                                                                                Human; mouse; chicken; rat; secreted expressed sequence tag; SEST; expressed sequence tag; EST; probe; chemotactic; proliferative; immunomodulatory; haematopoietic; chemokinetic; analgesic; haemostatic; thrombolytic; antiinflammatory; cytostatic; antibacterial; antifungal; antiviral; antidabetic; antiasthmatic; vulnerary; antiparkinsonian; antiviral; anticorvalisant; antidepressant; gene therapy; cerebroprotective; anticorvalisant; antidepressant; gene therapy; vaccine; autoimmune disorder; multiple sclerosis; allergic condition; insulin dependent diabetes; asthma; myeloid cell deficiency; ulcer; lymphoid cell deficiency; burn; osteoprosis; osteoarthritis; central nervous system disorder; Albeimer's disease; stroke; central nervous system disorder; Albeimer's disease; stroke;
                                                                           15-OCT-1999;
                                                                                                                              WO200021991-A1
                                                                                                                                                      Mus musculus.
                                                                                                                                                                                         Parkinson's disease; Huntington's disease; coagulation disorder; haemophilia; thrombosis; inflammatory disorder; Crohn's disease;
                                                                                                                                                                                                                                                                                                                                                                            Mouse secreted
                                                                                                                                                                                                                                                                                                                                                                                                     21-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA43525 standard;
                      (GEMY ) GENETICS INST INC.
                                                 15-OCT-1998;
                                                                                                    20-APR-2000
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                                                                                                                                                                                infection;
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                                                                           99WO-US24206
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              402
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence tags (SEST9), isolated from human, mouse, chicken and rat the tissue sources. The SESTs can have a range of activities depending on the tissues they were isolated from. The activities include: chemotactic; proliferative; immunomodulatory; haematopoietic; chemokinetic; analgesic; haemostatic; thrombolytic; antiofilammatory; cytostatic; antibacterial; antifungal; antiviral; antidiabetic; antiasthmatic; vulnerary; antilulcer; osteopathic; neuroprotective; antiasthmatic; vulnerary; antilulcer; osteopathic; neuroprotective;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 228-229; 803pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Isolated polynucleotides, and encoded proteins, comprising secreted expressed sequence tags (sESTs), useful for treating various disorders such as autoimmune, infectious, and central nervous system disorders -
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rHisArgLysAsnTyrValArgValValSerArgAsnGlyGluSerSerGluLeuAspLe
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Search completed: March 30, 2003, 22:42:55 Job time : 144.849 secs

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Command line parameters:

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-O-/cgn2_fVSIO082502/runat_24032003_135059_6547/app_query.fasta_1.1308
-DB-GenEmbl -QFMT-fastap -SUFFIX=rge -MINMATCH=0.1 -LOOPCLO- LOOPEXT=0
-UNITS-blts -START=1 -END=-1 -MATRIX=blosum62 -TRANS-humar0.cdi -LIST=45
-DCCALICN=200 -THR_SCORE-pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE-LOCAL
-UNITMT-pto -NORM-ext -HEAPSIZE=500 -MINLEN-0 -MAXLEN-200000000
-USER=US10082502_eCGN_1_1_4/58_erunat_24022003_135059_6547 -NCPU=6 -ICPU=3
-NO_XLENY -NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -LONGLOG -DEV_TIMEOUT=120
-WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
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Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
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AX44040 Sequence

AC025574 Homo sapi

AC025574 Homo sapi

AC023500 Homo sapi

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AC007341 Drosophil

AC007414 Drosophil

AC013613 Sequence

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MetLysGlyTrpGlyTrpLeuAlaLeuLeuGlyValLeuLeuGlyThrAlaTrpAla
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Mammalia; Eutheria; I
Mases 1 to 798)
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NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tlasue Procurement: Lothar Hennighausen Ph.D., Chu-Xia Der
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (Linl)
DNA Sequencing by: Baylor College of Medicine Human Genome
Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LINI at: http://image.llnl.gov/Series: IRAK Plate: 5 Row: b Column: 23 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA g1: 9903506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Web site: http://www.hgsc.bcm.tmc.edu/cdna/Contact: amg@bcm.tmc.edu
Guntaratne, P.H., García, A.M., Lu, X., Huly
Yoon, V.S., Kowis, C.R., Lawrence, S., Mart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
Submitted (22-MAY-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
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                                   (1-182) x BC008261
                                                                                                                                                                                                                                                                        /translation="mkGwGwLallLGVLLGTawarrSQDLHCGACRALVDELEWEIAR
VDPKKIQWGSFRIWPDGSQSVVEVPYARSBAHLTELLEEVCDRWKEYCEQIDPSTHR
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DKICKKFTTLCHALHRSHDEL"
                                                                                                                                                                                                                                                                DKLCSKRTDLCDHALHRSHDEL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      months old, gross tissue."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Mus musculus"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /lab_host-"DH10B"
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                                                                                                                                                                                                                                                                                                                                          /db_xref="LocusID:56530"
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                                                                                                                          Submitted (14-SEP-1999) Biomolecular Informatics, Inc., 1201 Eastlake Ave. East, Seattle, WA 98102, Location/Qualifiers
                                                                                                                                                                Direct Submission
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Sheppard, P., Jelinek, L.,
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Sheppard, P., Jelinek, L.,
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Mammalia; Eutheria;
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                                     /gene="
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                                                                          Homo sapiens chromosome 12 clone SEQUENCE, 5 unordered pieces. AC012013
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 158198)
                                                         HTG;
                                                                 AC012013.18 GI:14717292
                                      Homo
                                   sapiens
                                                   HTGS_PHASE1; HTGS_DRAFT; HTGS_ACTIVEFIN
                                            sapiens.
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/protein_id="AAF01433.1"
/db_xref="GI:6014636"
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Coyle, M.D., Dathorne, S.R., David, R., David, R., David, C.D., Cox, C., Davy-Carroll, L., Dederich, D. A., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J., Earnhart, C., Edgar, D., Edwards, C.C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Gabisi, A., Gao, J., Garcia, A., Garrer, T., Garza, N., Gill, R., Gorrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Hamilton, K., Harris, C., Howard, S., Huber, J., Hulyk, S., Hume, J., Hernandez, O., Hodgson, A., Hogues, M., Holloway, C., Joudsh, S., Karlsson, E., Jia, Y., Johnson, R., Jolivet, S., Juckson, B., Jia, Y., Johnson, R., Jolivet, S., Joudsh, S., Karlsson, E., Kichtarge, O., Lieu, C., Liu, J., Liu, W., Lozado, R.J., Lu, X., Lucler, A., Lucler, R., Luna, R., Martinged, H., Lozado, R.J., Lu, X., Lucler, A., Lucler, R., Luna, R., Martindele, A., Martinez, E., Massey, E., Mawhiney, E., McLeod, M.P., Meador, M., Mouris, S., Moser, M., Nickerson, E., Nwokenkwo, S., Oguh, M., Owuonn, G., Oragunye, N., Oviedo, R., Pace, A., Payton, B., Peters, L., Pickens, R., Primus, E., Pu, L., Ruizs, S., Savery, G., Scherer, S., Scott, G., Shen, H., Shooshtari, N., Stone, H., Suton, A., Svatek, A., Tabor, P., Tamerisa, R., Tangey, J., Taylor, C., Taylor, C., Taylor, C., Taylor, C., Taylor, C., Taylor, D., Villalon, D., Vinson, R., Walliams, G., Williamson, A., Washington, C., Wu, Y., Wu, Y.F., Zhou, J., Zorrilla, S., Nelson, D., Welson, D., Washington, C., Walliamson, A., Washington, C., Walliamson, A., Washington, C., Walliamson, A., Washington, D., Washington, D., Walliamson, A., Washington, D., Washington, D., Washington, D., Washington, C., Walliamson, A., Waleczyk, R., Washington, C., Walliamson, A., Waleczyk, R., Washington, C., Walliamson, A., Waleczyk, R., Washington, C., Walliamson, C., Walliamson, A., W
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(bases 1 to 158198)
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Banks, T., Barbaria, J.,
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COMMENT

JOURNAL TITLE

TITLE JOURNAL REFERENCE AUTHORS

Worley K.C.

Direct Submission

Submitted (19-OCT-1999) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Jul 13, 2001 this sequence version replaced g1:14547727.

The Contermal Content of Medicine

Center project Information
Center project name: HMKZ
Center clone name: RPI1-764L14

Sequencing vector: M13; L08821
Chemistry: Dye-terminator Big Dye: 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 16127% bases at least Q40
Consensus quality: 170806 bases at least Q30
Consensus quality: 170806 bases at least Q30
Consensus quality: 174843 bases at least Q30
Estimated insert size: 1638803; sum-of-contigs estimation
Quality coverage: 6x in Q20 bases; sqarose-fp estimation
Quality coverage: 5.8x in Q20 bases; sum-of-contigs estimation sum-of-contigs estimation

NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a "working draft' sequence. It currently consists of 5 contigs. The true order of the pieces is not known and their order in this sequence record is

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/organism="Homo sapiens"
/db_xref="taxon:9606"
/Chromosome="12"
/clone="RP11-764114"
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Eukaryota; Metazoa;
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Lodes,M.J., Algate,P.A., Fling,S.P.,
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                                          GluileAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
                                                                       GAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Selection of cDNAs encoding putative type II membrane prot. the cell surface from a human full-length cDNA bank Gene 228 (1-2), 161-167 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (16-JUN-1998) Seishi Kato, Research Institute of National Rehabilitation Center for the Disabled, Department of Rehabilitation Engineering; 4-1 Namiki, Tokorozawa, Saitama 359-8555, Japan (E-mail:seishi@rehab.go.jp, Tel:042-995-3100(ex.2568), Fax:042-995-3132)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kato,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  type II membrane protein.
Homo sapiens gastric adenocarcinoma cDNA clone_lib:pKAl-meta-1 clone:HP10390.
Homo sapiens
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="gastric adenocarcinoma"
/clone_lib="pKA1-meta-1"
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/db_xref="taxon:9606"
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Husargatan 3, Uppsala 75123, Sweden
                                                                                                                                                                                                                                                                                                                                                            Bornhauser, B.C., Olsson, P.-A. NSAP is a novel saposin-like pstimulates neurite outgrowth
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                                                                                                                                                                                                                                                                                                       Direct Submission
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                                                                                                                                                                                                                                                                                                                                                   Unpublished
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/translation="MKGWGWLALLLGALLGTAWARRSQDLHCGACRALYDELEWEIAQ
VDPKKTIQWGSFRINDDGSQSVVEVPYARSEAHLTELLBEICDRMKEYGEQIDPSTHR
KNYVRYVGRUGESSELDLQGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK
DKLCSKRTDLCHALHISHDEL"
269 c 343 g 230 t
                                                                                                                                                                   /map="1;
419. .96
                                                                                                                                    /note="NSAP; encodes a putative ER retention
                                                                         /product="saposin-like protein"
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/db_xref="GI:20196199"
                                                                                                                                                                                                            /organism="Homo sapiens"
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AX464040
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                                                                                                                Genentech
                                                                                                                              Patent:
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Mammalia; Eutheria;
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                                                    /organism="Homo sapiens"
/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
                                                                                                                                                                                                                                                                                                                         GAGCTA
                                                                                                                                                                                                                                                                                                                                                                           GACAAACTTTGCAGTAAGCGAACAGATCTTTGTGACCATGCCCTGCACATATCGCATGAT
                                                                                                                                                                                                                                                                                                                                                                                                                         GTGGAGGAATACGAGGATGAACTCATTGAATTCTTTTCCCGAGAGGCTGACAATGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCTGGAGGAGATATGTGACCGGATGAAGGAGTATGGGGAACAGATTGATCCTTCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATGGCAGCCAGTCAGTGGAGGTGCCTTATGCCCGCTCAGAGGCCCACCTCACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAATTGCCCCAGGTGGACCCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGG
Muzny,D.M., Adams,C., Adio-Oduola,B., Ali-osman,F.R., Allen,C., Alsbrooks,S.L., Amaratunge,H.C., Are,J.R., Ayele,M., Banks,T., Barbaria,J., Benton,J., Bimage,K., Blankenburg,K., Bonnin,D., Bouck,J., Bowie,S., Brieva,M., Brown,E., Brown,M., Bryant,N.P., Bunky,C., Burch,P., Burkett,C., Burrell,K.L., Byrd,N.C., Carron,T.F., Carter,M., Cavazos,S.R., Chacko,J., Chavez,D., Chen,G., Chen,R., Chen,Z., Chowdhry,I., Christopoulos,C., Cleveland,C.D., Cox,C., Coyle,M.D., Dathorne,S.R., David,R., Davis,C., Davy-Carroll,L., Dederich,D.A., Delaney,K.R., Delgado,O., Denn,A.L., Ding,Y., Dinh,H.H., Douthwalte,K.J., Draper,H., Dugan-Rocha,S., Durbin,K.J., Earnhart,C., Edgar,D., Edwards,C.C., Elhaj,C., Escotto,M.,
                                                                                                                                                                                                                                      AC025574 155023 bp
Homo sapiens chromosome 12 clone
SEQUENCE, 12 unordered pieces.
AC025574
                                                                                                                                                                          Eukaryota; Metazoa;
                                                                                                                                                                                      Homo sapiens
                                                                                                                                                Mammalia; Eutheria; Pr
1 (bases 1 to 155023)
                                                                                                                                                                                                              HTGS_PHASE1;
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97.25%
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Conservative:
Mismatches:
Indels:
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Catarrhini; Hominidae;
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Bryant, N. P.,

Euteleostomi;

Homo.

HTG 09-MAY-2002

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842

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60 662 6 602 20

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Harris,C., Harris,K., Harlaw, Havlak,P., Hawes,A., Hernandez,J.,
Hernandez,O., Hedgson,A., Hogues,M., Holloway,C., Hollins,B.,
Homsi,F., Howard,S., Huber,J., Hulyk,S., Hume,J., Jackson,L.E.,
Jacobson,B., Jia,Y., Johnson,R., Jolivet,S., Joudah,S.,
Karlsson,E., Kelly,S., Khan,U., King,L., Korvah,J., Kovar,C.,
Kratovic,J., Kureshi,A., Landry,N., Leal,B., Lewis,L.C., Lewis,L.,
Li,J., Li,Z., Lichtarge,O., Lieu,C., Liu,J., Liu,W., Louiseged,H.,
Maheshwari,M., Mapua,P., Martin,R., Martindale,A., Martinez,E.,
Miner,G., Miner,Z., Mitchell,T., Mohabbat,K., Morgan,M., Morris,S.,
Moser,M., Nawhiney,B., McLeod,M.P., Meador,M., Mei,G., Metzker,M.,
Moser,M., Notedo,R., Pace,A., Payton,B., Peery,J., Perez,J.,
Peters,L., Pickens,R., Primus,E., Pu,L., Quiles,M., Ren,Y.,
Rives,M., Rojas,A., Rojubokan,I., Rolfe,M., Ruiz,S., Savery,G.,
Sodergren,B., Sonaike,T., Shooshtari,N., Sisson,I.,
Sodergren,B., Vasquez,L., Vera,V., Villalon,D., Vinson,R., Wang,Q.,
Wang,S., Ward-Moore,S., Warren,R., Washington,C., Watlinamson,S.,
Wu,Y., Wu,Y.F., Zhou,J., Zorrilla,S., Nelson,D.,
Poirect Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (09-MAY-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
On May 3, 2002 this sequence version replaced g1:20335511.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
Submitted (11-MAR-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 155023)
                                     NOTE: Estimated insert size may differ from sequence length
(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 12 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Falls,T., Ferraguto,D., Flagg,N., Ford,J., Foster,P., Frantz,P., Gabisi,A., Gao,J., Garcia,A., Garner,T., Garza,N., Gill,R., Gorrell,J.H., Guevara,W., Gunaratne,P., Hale,S., Hamilton,K.,
                                                                                                                                                                                                                                                                    Sequencing vector: M13;
Chemistry: Dye-primer Bodipy: 5% of reads
Chemistry: Dye-terminator Big Dye: 95% of reads
Chemistry: Dye-terminator Big Dye: 95% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 141522 bases at least 0.9
Consensus quality: 147097 bases at least 0.9
Consensus quality: 150442 bases at least 0.9
Estimated insert size: 150706; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Project Information
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      3033: contig of 3033 bp in length
                                                                                                                                                                                                                                                         Q20 bases; sum-of-contigs estimation
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ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
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                    55700
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                               ASPASnValLysAspLysLeuCysSerLysArgThr-----
                                                                                                             CysGluSerIleValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAla 156
                                                                                                                                                                  AAGTGAAGGCAAGAGGCCTCTTATTGCCCTGTGTCACCCATTTCTCCCCTTGGGTTGGCAG 55761
                                                                                    TGTGAGAGCATTGTGGAGGAATACGAGGATGAACTCATTGAATTCTTTTCCCGAGAGGCT
                                                                                                                                                                                                                                                                                                                                                              MetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgVal 108
                                                                                                                                                                                                                                                                                                                                     ATTAGCGGCACCCTCAAGTTTGCGGTGAGCTATGGGAATCGGTAGCTGGTTCTTGGACAT 55881
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
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31778: contig of 7028 bp in length
31878: gap of unknown length
42263: contig of 10385 bp in length
42363: gap of unknown length
51104: contig of 8741 bp in length
51204: gap of unknown length
68306: contig of 17102 bp in length
68406: gap of unknown length
68406: gap of unknown length
68406: gap of unknown length
109481: contig of 41075 bp in length
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474.50
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REFERENCE AUTHORS TITLE

Worley, K.C.

Submission

JOURNAL

Quality coverage: 4x in

Center clone name: RP11-348M3

Center project name: HALV

TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE

Worley, K.C. Unpublished

(bases 1 to 155023)

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RESULT 9
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Alloroks, S.L., Amaratunge, H.C., Are, J.R., Ayele, M., Banks, T., Alboroks, S.L., Amaratunge, H.C., Are, J.R., Ayele, M., Banks, T., Barboroks, S.L., Amaratunge, K., Blankenburg, K., Bonnin, D., Barboroks, S.L., Amaratunge, K., Blankenburg, K., Bonnin, D., Burchai, J., Blankenburg, K., Bonnin, D., Burchai, J., Bowle, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bouck, J., Bowle, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bouck, J., Chacko, J., Chacko, J., Chacko, J., Chavez, D., Charden, C., Chacko, J., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Ceveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A., Davila, M., Dederich, D.A., Delaney, K.R., Delgado, O., Denn, A.L., Dindy, Y., Dinh, H.H., Delthwaite, K.J., Delgado, O., Denn, A.L., Dindy, Y., Dinh, H.H., Dethin, K.J., Davila, R., Chen, C., Edgar, D., Edwards, C.C., Elhdj, C., Escotto, M., Escotto, M., Escotto, M., Carroll, J., Dester, P., Frantz, P., Frantz, P., Falls, T., Ferraguto, D., Flagy, N., Ford, J., Garza, N., Gill, R., Gablsi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Garcil, A., Garner, T., Garza, N., Gill, R., Gablsi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J., Howard, S., Huber, J., Holloway, C., Hollins, B., Hernandez, O., Hodgson, A., Hogues, M., Holloway, C., Hollins, B., Hernandez, O., Hodgson, A., Hogues, M., Holloway, C., Hollins, B., Jackson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Karloson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Karloson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Karloson, E., Martinez, E., McLeod, M.P., Meador, M., Martinez, E., Massey, E., McLeod, M.P., Meador, M., Martinez, E., McLeod, M.P., Meador, M., Martinez, E., McLeod, M.P., Meador, M., Martinez, E., Martinez, E., Martinez, E., McLeod, M., Nedo, M., Nen, Y., Perez, L., Peters, L., Potkers, M., Shooshtari, N., Sisson, I., Sott, G., Martinez, M.,
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Homo sapiens chromosome 12 clone RP11-977G19, WORKING DRAFT
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1 (bases 1 to 182350)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Submitted (24-AUG-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Aug 23, 2002 this sequence version replaced gi:22296903.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (01-JUL-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sodergren, E., Sonaike, T., Sparks, A., Stanley, H., Stone, H., Sutton, A., Svatek, A., Tabor, P., Tamerisa, A., Tamerisa, K., Tang, H. Tansey, J., Taylor, C., Taylor, T., Telfrod, B., Thomas, N., Thomas, S. Usmani, K., Vasquez, L., Vera, V., Villalon, D., Vinson, R., Wang, O., Ward, S., Ward-Moore, S., Warren, R., Washington, C., Watlington, S., Williamson, A., Wleczyk, R., Wooden, S., Worley, K., Wu, C., Wu, Y., Wu, Y.F., Zhou, J., Zorrilla, S., Nelson, D., Weinstock, G., and Gibbs, R.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently
consists of 5 contigs. The true order of the pieces
is not known and their order in this sequence record is
arbitrary. Gaps between the contigs are represented as
runs of N, but the exact sizes of the gaps are unknown.
This record will be updated with the finished sequence
as soon as it is available and the accession number will
                           46453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOTE: Estimated insert size may differ from sequence length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                be preserved
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chemistry: Dye-primer Bodipy: 15% of reads Chemistry: Dye-terminator Big Dye: 85% of reads Assembly program: Phrap; version 0.990329 Consensus quality: 179279 bases at least Q40 Consensus quality: 180581 bases at least Q30 Consensus quality: 180581 bases at least Q30 Consensus quality: 181073 bases at least Q20 Consensus quality: 181073 bases at least Q20 Estimated insert size: 174258; sum-of-contigs estimation quality coverage: 8x in Q20 bases; sum-of-contigs estimation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center project name: HBWI center clone name: RP11-977G19 ----- Summary Statistics sequencing vector: Plasmid; sequencing vector: M13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Web site: http://www.hgsc.bcm.tmc.edu/
Draftling Center Code: BCM
Contact: hgsc-help@bcm.tmc.edu
Contact: Project Information
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2994
6687
6787
17252
17352
                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                       Location,
                                                   clone="RP11-977G19"
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                                                                                                                                                                                                                               85894: contig of 68543 bp in
85994: gap of unknown length
182350: contig of 96356 bp in
                                                                                                                                                                                                                                                                                                           2893: contig of 2893 bp in length 2993: gap of unknown length 6686: contig of 3693 bp in length 6786: gap of unknown length 17251: contig of 10465 bp in length 17351: gap of unknown length 67864. gap of unknown length 67864.
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Alignment Scores:

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Mammalla: Eutherda: Craniata; Vertebrata; Euteleostomi; Mammalla: Euthera; Primates; Catarrhini; Hominidae; Homo.

BE 1 (bases 1 to 184762)

MIZNY,D.M., Adams,C., Adio-Oduola,B., Ali-osman,F.R., Allen,C., Alsbrooks,S.L., Amaratunge,H.C., Are,J.R., Ayele,M., Banks,T., Barbaria,J., Benton,J., Bimage,K., Blankenburg,K., Bonnin,D., Bouck,J., Bouck,J., Benton,J., Bimage,K., Bankenburg,K., Bonnin,D., Bouck,J., Bowie,S., Brieva,M., Brown,E., Brown,M., Bryant,N.P., Buhay,C., Burch,P., Burkett,C., Burcell,K.L., Byrd,N.C., Carron,T.F., Carter,M., Cavazos,S.R., Chocko,J., Chavez,D., Chen,G., Chen,R., Chen,Z., Chowdhry,I., Christopoulos,C., Chen,G., Chen,R., Chom,Z., Chowdhry,I., Christopoulos,C., Chen,G., Chen,R., Chowlay,I., Dathorne,S.R., David,R., Davila,M.L., Davy-Carroll,L., Dederich,D.A., Davila,M.L., Davyis,C., Davy-Carroll,L., Dederich,D.A., Davila,M.L., Davis,C., Davy-Carroll,J., Dederich,D.A., Delaney,K.R., Delgado,O., Denn,A.L., Ding,Y., Dinh,H.H., Delaney,K.R., Delgado,O., Denn,A.L., Ding,Y., Dinh,K.J., Escotto,M., Esrantar,C., Edgar,D., Edwards,C.C., Elhaj,C., Escotto,M., Earnhart,C., Edgar,D., Frantz,P., Gabisi,A., Gao,J., Garcia,A., Garner,T., Garza,N., Gill,R., Gaorrell,J.H., Guevara,W., Gunaratne,P., Hale,S., Hamilton,K., Hart,M., Havlak,P., Hawes,A., Hernandez,J., Homson, R., Johnson, R., J
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Homo sapiens chromosome 12 clone RP11-183H16, WORKING DRAFT
SEQUENCE, 9 unordered pieces.
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COMMENT

(see http://www.hgsc.bcm.tmc.edu/docs/Genbank.draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 9 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence

NOTE: Estimated insert size may differ from sequence length

as soon as it is available and the accession number will be preserved.

2041 2141 4171 4271

4170: 4270: 2040:

contig of 2040 bp in length gap of unknown length contig of 2030 bp in length gap of unknown length contig of 4024 bp in length of 2030 of 4024 of 4024 unknown

bp in length

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On A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (15-FEB-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
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Web site: http://www.hgsc.bcm.tmc.edu/
Draffing Center Code: BCM
Contact: hgsc-help@bcm.tmc.edu
Contact: project Information
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Sequencing vector: M13;

Sequencing vector: M13;

Chemistry: Dye-terminator Big Dye: 98% of reads

Chemistry: Dye-terminator Big Dye: 98% of reads

Assembly program: Phrap; version 0.990329

Consensus quality: 183845 bases at least Q40

Consensus quality: 184849 bases at least Q30

Consensus quality: 185447 bases at least Q30

Consensus quality: 185447 bases at least Q30

Estimated insert size: 159026; sum-of-contigs estimation

Quality coverage: 8x in Q20 bases; sum-of-contigs estimation
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                                        sequence.
AC090489
AC090489.8
         Mus musculus
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Genomic sequence
  Eukaryota; Metazoa;
                      Mus musculus.
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/db_xref="taxon:9606"
/chromosome="12"
/clone="RP11-183H16"
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6: gap of unknown length
6: contig of 18780 bp in 1
6: gap of unknown length
5: contig of 19119 bp in 1
6: gap of unknown length
6: gap of unknown length
6: contig of 31790 bp in 1
6: gap of unknown length
10: contig of 35738 bp in 1
10: gap of unknown length
10: contig of 64639 bp in 1
Chordata; Craniata;
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GGAGTTATAGGGATTCCCTGGCACAGGATGGGAGGATGGGGAAGTGGTGTTGCCTAC 76088
                                                                                                                                                                                                                                                                GTACCTTATGCCCGCTCAGAGGCCCACCTCACAGAGTTGCTTGAGGAGGTGTGTGACCGA 75848
                                                                                      ATCAGCGGCACCCTCAAGTTTGCGGTGAGTTACCGCTGTGCCGTGAGTAGCTGTTTCTTG 76028
                                                                                                             on Jan 26, 2002 this sequence version replaced gi:18201765. This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (26-JAN-2002) Lita Annenberg Hazen Genome Sequencing Center, Cold Spring Harbor Laboratory, 1 Bungtown Road, Cold Spring Harbor, NY 11724, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (24-FEB-2001) Lita Annenberg Center, Cold Spring Harbor Laboratory, Harbor, NY 11724, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae.

1 (bases 1 to 207424)

1 (bases 1 to 207424)

MCCombie,W.R., de la Bastide,M., Spiegel,L., Preston,R., Kirchoff,K., Kuit,K., Nascimento,L., Zutavern,T., Balija,V., Bell,M., Baker,J., Santos,L., Miller,B., Katzenberger,F., Bell,M., Baker,J., Yang,C., Palmer,L., O'Shaughnessy,A. and modler,S., King,L., Yang,C., Palmer,L., O'Shaughnessy,A. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
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/db_xref="taxon:10090"
/clone="RP23-104010"
/clone_11b="RPCI-23"
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                                              Barbaria, J., Benton, J., Binage, K., Are, R., Ayele, M., Banks, T., Bouck, J., Bowle, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Buhay, C., Burch, P., Burkett, C., Burch, K.L., Byrd, N.C., Carron, T.F., Carter, M., Cavazos, S.R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Dav
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus
Eukaryota; Metazoa;
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Rodentia;
                              Sparks, A., Stanley, H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae;
      Tamerisa, A.,
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5, *** SEQUENCING
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Tang, H.
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TITLE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (08-FEB-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tansey J., Taylor, C., Taylor, T., Telfrod, B., Thomas, N., Thomas, S., Usmani, K., Vasquez, L., Vera, V., Villalon, D., Vinson, R., Wang, O., Wang, S., Ward-Moore, S., Warren, R., Washington, C., Watlington, S., Williamson, A., Wleczyk, R., Wooden, S., Worley, K., Wu, C., Wu, Y. F., Zhou, J., Zorrilla, S., Nelson, D., Weinstock, G. and Gibbs, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                     Jul 12, 2002 this sequence version replaced g1:18860222.
Summary Statistics
Sequencing vector: Plasmid;
Chemistry: Dye-terminator Hig Dye: 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 60229 bases at least Q40
Consensus quality: 63959 bases at least Q30
Consensus quality: 66730 bases at least Q30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (bases 1 to 101666)
                                                                                                                                                                                                       Center project name: GQKY
Center clone name: CH230-319E6
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* NOTE: Estimated insert size may differ from sequence length

(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

* NOTE: This is a 'working draft' sequence. It currently

* consists of 47 contigs. The true order of the pieces

* is not known and their order in this sequence record is

* rans of N, but the exact sizes of the gaps are unknown.

* This record will be updated with the finished sequence

* as soon as it is available and the accession number will

* be preserved. 14201 15841 15941 15941 17054 12463 14101 8041 8141 10044 10144 3073 4718 1424 1524 2973 4818 1423: contig of 1423 bp in length
1523: gap of unknown length
2972: contig of 1449 bp in length
3072: gap of unknown length
4717: contig of 1645 bp in length
4817: gap of unknown length
6632: contig of 1815 bp in length
6732: gap of unknown length
8040: contig of 1815 bp in length
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, t <u>t t g , o</u>	GAGCGA	GeuLysi TCAAGT SATTCCT	ArgSer(7.06e-: 429.00 49.258 48.748 44.738
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orot	TCTAGGCCAGCTGGAGCGATATCATAAAACCCTGTCTATAAAATCCCCACTGCCACCCAA	IleSerGlyThrLeuLySPhe	502-19 (1-182) x AC109891 (1-101666) ValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluValCysAspArg	Length: Matches: Conservativ Mismatches: Indels: Indels:
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Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                     GATGGCAGCCAGTCAGTGGTGGAGGTA 310
                                                                          Direct Submission

Submitted (17-NOV-2000) National Institutes of Health, Mammalian Submitted (17-NOV-2000) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
     Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
cDNA Library Preparation: Rubin
                                           NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 824)
                                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                            BC001027.1
                                                                                                                                                                                                      HOMO
                                                                                                                                                                                                                                                                   Homo sapiens, transmembrane protein IMAGE:3344788, mRNA, complete cds.
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/db_xref="dbEST:R15306"
/db_xref="taxon:9606"
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Mismatches:
Indels:
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4, clone MGC:1545
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ACCESSION
VERSION
KEYWORDS
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DEFINITION

AC103156 AC103156.3 GI:21731105

SEQUENCING

IN PROGRESS

HTGS_PHASE1.

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RESULT 15
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Query Match:
DB:
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                                                                 COCUS
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                                                                                                                                                                                                                                    GlulleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro 60
                                                                                                                                                                                                             CGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGG
Rattus norvegicus clone CH230-208H17, *
***, 42 unordered pieces.
AC103156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAL Plate: 5 Row: p Column: 13 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA g1: 6014631. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: nisc_mgc@nhgri.nih.gov
Shevchenko,Y., Wetherby,K.D., Beckstrom-Sternberg,S.M.,
Benjamin,B., Blakesley,R.W., Boutfard,G.G., Brinkley,C., Brooks,S.
Benjamin,B., Blakesley,R.W., Boutfard,G.G., Brinkley,C., Brooks,S.
Dietrich,N.L., Guan,X., Gupta,J., Ho,S.-L., Karlins,E., Legaspi,R.
Lim,M., Maduro,Q.L., Masiello,C., Mastrian,S.D., McCloskey,J.C.,
McDowell,J., Pearson,R., Snyder,B., Stantripop,S., Thomas,P.J.,
Tiongson,E.E., Touchman,J.W., Tsurgeon,C., Vogt,J.L., Walker,M.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
Gaithersburg, Maryland;
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194 c 233 g 176 t
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REFERENCE
AUTHORS
TITLE
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JOURNAL
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Buhay, G. Burch, P. Burkett, C. Burrell, K. L. Byrd, N. C.
Carron, T. F. Carter, M. Cavazos, S. R. Chacko, J. Chavez, D.,
Chen, G. Chen, R. Chen, Z., Chowdhry, I. Christopoulos, C.,
Cleveland, C. D., Cox, C., Coyle, M. D. Dathore, S. R., David, R.,
Davila, M. L. Davis, C., Davy-Carroll, L. Dederich, D. A.,
Davila, M. L. Davis, C., Davy-Carroll, L. Dederich, D. A.,
Davila, M. L. Davis, C., Davy-Carroll, L. Dederich, D. A.,
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Falls, T., Ferraguto, D., Flagg, M., Ford, J., Foster, P., Frantz, P.,
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Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R.,
Gorrell, J.H., Guevara, W., Gunaratne, P., Halle, S., Hamilton, K.,
Hernandez, O., Hodgson, A., Hogues, M., Helloway, C., Henlins, B.,
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Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S.,
Karlsson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C.,
Kratovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L. C., Lewis, L.,
Li, J., Li, Z., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Loulseged, H.,
Lozado, R.J., Lu, X., Lucler, R., Luna, R., Ma, J.,
Mansey, E., Mawhiney, E., McLeod, M.P., Meador, M., Merzker, M.,
Masswy, E., Mawhiney, E., McLeod, M.P., Meador, M., Merzker, M.,
Masswy, E., Mawhiney, E., McLeod, M.P., Meador, M., Meige, M.,
Messey, E., Mawhiney, E., Nokenbwo, S., Oguh, M., Okwuonu, G.,
Oragunye, M., Rojas, A., Rojubokan, I., Kolfe, M., Ruiz, S., Savery, G.,
Scherer, S., Scott, G., Shen, H., Shoshtari, M., Sisson, I.,
Sodergren, E., Sonaike, T., Sparks, A., Stanley, H., Stone, H.,
Sutton, A., Wayse, A., Papico, T., Telfrod, B., Thomas, N., Thomas, S.,
Ward, More, S., Marten, R., Martinez, Moriey, K.,
Wang, O.,
Wanni, K., Wasger, L., Vera, V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 (bases 1 to 69753)
Worley,K.C.
Direct Submission
Submitted (24-NOV-2001) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 69753)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (13-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Jul 11, 2002 this sequence version replaced g1:17974643.
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Rattus norvegicus
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                                       Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Center project name: GJIX
Center project name: GH230-208H17
Center clone name: CH230-208H17
Center clone name: CH230-208H17
Chemistry: Dye-terminator Big Dye: 100% (Chemistry: Dye-terminator Big Dye: 100%)
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Rodentia;
version 0.
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e: 100% of reads 0.990329
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Consensus quality: 15506 bases at least Q40
Consensus quality: 17125 bases at least Q30
Consensus quality: 18271 bases at least Q30
Consensus quality: 18271 bases at least Q20

NOTE: Estimated insert size may differ from sequence length .

(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently
consists of 42 contigs. The true order of the pieces
is not known and their order in this sequence record is
arbitrary. Gaps between the contigs are represented as
runs of N, but the exact sizes of the gaps are unknown.
This record will be updated with the finished sequence
as soon as it is available and the accession number will
be preserved.
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39477 39577 41222 41322 41321 43131 37672 37772 35868 35968 34616 34716 28430 30047 30147 31614 31714 33121 33221 25396 25496 26516 26516 26616 28330 14477 15791 15891 17011 17711 18309 18409 18409 19787 21146 221246 9485 10997 11097 12555 12655 14377 22640 23862 23962 18408: 19786: 18308: gap of contig gap of contig gap of gap of contig gap gap gap o gap o conti gap o gap o contig gap of contig gap o gap of gap of gap of contig gap o gap or gap of gap of gap of contig contig conti contig gap of gap of contig contig contig of 1705 unknown of 1645 unknown of 1809 of 1434
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Search completed: March 31, 2003, 03:39:46 Job time: 1885.3 secs
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Best Local Similarity:
Query Match:
DB:
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ORIGIN
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462300
463000
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49162
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1. .69753
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a 17000 c 17392 g 15839 t 4
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46199: contig of 1365 bp in length
46299: gap of unknown length
49061: contig of 2762 bp in length
49161: gap of unknown length
51059: contig of 1898 bp in length
51159: gap of unknown length
53167: gap of unknown length
53167: gap of unknown length
54641: contig of 1908 bp in length
54741: gap of unknown length
57496: contig of 2755 bp in length
5799: gap of unknown length
59003: contig of 1407 bp in length
59103: gap of unknown length
6021: contig of 1518 bp in length
6021: gap of unknown length
6028: contig of 2000 bp in length
60353: contig of 2669 bp in length
6753: contig of 2000 bp in length
67753: contig of 2000 bp in length
67753: contig of 2000 bp in length
67753: contig of 2000 bp in length
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Command line parameters:

-MODEL-frame+_p21.model -DEV-xlp
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-Q-/cgn2_1/USPTO_spool_VS10082502/runat_24032003_135059_6547/app_query.fasta_1.1308
-DB-GenEmb1 -QFMT-fastap -SUFFIX-rge -MINMATCH-0.1 -LOOPCL-0 -LOOPEXT-0
-UNITS-blts -START-1 -END--1 -MATRIX-blosum62 -TRANS-human40.cd1 -LIST-45
-DOCALIGN-200 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALIGN-15 -MODE-LOCAL
-OUTFMT-pto -NORM-ext -HEAPSIZE-500 -MINLEN-0 -MAXLEN-200000000
-USER-US10082502_eCGN.1_1_4758_erunat_2403203_135059_6547 -NCPU-6 -ICPU-3 .
-NO_XLPXY -NO_MMAP -LARGEQUERY -NEG_SCORES-0 -WAIT -LONGLOG -DEV_TIMEOUT-120
-WARN_TIMEOUT-30 -THREADS-1 -XGAPOP-10 -XGAPEXT-0.5 -FGAPOP-6 -FGAPEXT-7
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 GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

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RESULT 2
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AX440456
AX440456.1
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Compositions and methods for the the
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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GluIleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
                                                        CGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGG
                                                                                                                                                                                                                                                                                                                                                                                                        Scores:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Yokoyama-Kobayashi,M., Yamaguchi,T., Sekine,S. and Kat
Selection of CDNAs encoding putative type II membrane
the cell surface from a human full-length cDNA bank
Gene 228 (1-2), 161-167 (1999)
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Homo sapiens gastric adenocarcinoma
Clone_lib:pKAl-meta-1 clone:HP10390
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/product="type II membrane protein"
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KNYVRVVGRNGESSELDLGGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK
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/db_xref="taxon:9606"
/clone="HP10390"
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/clone_lib="pKA1-meta-1"
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GluIleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro 40
                          ArgargSerGlnaspLeuHisCysGlyAlaCysArgAlaLeuValaspGluLeuGluTrp 20
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Bornhauser, B.C., Olsson, P.-A. and Lindholm, D. NSAP is a novel saposin-like protein that interest stimulates neurite outgrowth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (13-APR-2001) Neuroscience, Husargatan 3, Uppsala 75123, Sweden
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Olsson, P.-A. and I
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens saposin-like protein mRNA, complete cds. AY032624
AY032624.1 GI:20196198
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269 c 343 g 230 t
                                                                                                                                                                                                                                                                                                                                                                   /note="NSAP; encodes a type
putative ER retention motif"
                                                                                                                                                                                                                                                                                                            /product="saposin-like protein"
/protein_id="AAK38148.1"
/db_xref="GI:20196199"
                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="12"
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Gao,W.Q., Gerritsen,M.E., Goddard,A., Godowski,P.J., Gurney,A
Sherwood,S., Smith,V., Stewart,T.A., Tumas,D., Watanabe,C.K.,
Wood,W.L. and Zhang,Z.
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Sequence 173 from Patent
AX464040
AX464040.1 GI:21899037
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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/db_xref="taxon:9606"
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                                                                                          Web site: http://w...
Web site: http://w...
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X.
Yoon, V.S., Kowis, C.R., Lawrence, S.
Richards, S., Gibbs, R.A.
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                                                Clone distribution: MGC clone distribution information can be for through the I.M.A.G.E. Consortium/LLNL at: http://lmage.llnl.gov/Series: IRAK Plate: 5 Row: b Column: 23
This clone was selected for full length sequencing because it
                                                                                                                                                                               USA

NIH-MGC Project URL: http://mgc.nci.nih.gov

Contact: MGC help desk

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Lothar Hennighausen Ph.D., Chu-Xia Der

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Baylor College of Medicine Human Genome

Sequencing Center

Center code: BCM-HGSC
                                                                                                                                                                                                                                                                                                           Direct Submission
Submitted (22-MAY-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                Strausberg, R
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                                     lone was selected for full length sequencing because it the following selection criteria: matched mRNA gi: 990
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  /organism="Mus musculus"
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/map="129;C57BL/6J;FVB/N"
/clone="MGC:6853 IMAGE:2650612
/tissue_type="Mammary tumor. B:
months old, gross tissue."
/clone_tlb="NGL CGAP_Mam3"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus putative secreted protein
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/protein_id="AAF01433.1"
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/db_xref="taxon:10090"
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Submitted (19-0CT-1999) Human Genome Sequencing Center, Departed Molecular and Human Genetics, Baylor College of Medicine, Baylor Plaza, Houston, TX 77030, USA On Jul 13, 2001 this sequence version replaced gi:14547727.
                                                         Direct Submission
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ASPLYSLeuCySSerLysArgThrAspLeuCySAspHiSAlaLeuHisIleSerHiSASp 160
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Homo sapiens chromosome 12 cl
SEQUENCE, 5 unordered pieces.
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                    Submission
       to 158198)
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NOTE: This is a "vorking draft' sequence. It currently consists of 5 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
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/organism="Homo sapiens"
/db_xref="taxon:9606"
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Allen, C.,

Alsbrooks, S.L., Amaratunge, H.C., Ara, J.R., Ayele, M., Banks, T.,

Alsbrooks, S.L., Amaratunge, H.C., Ara, J.R., Ayele, M., Banks, T.,

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Buhay, C., Burch, P., Burkett, C., Burch, M., Brown, M., Bryant, N.P.,

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Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C.,

Cleveland, C.D., Cox, C., Coyle, M., D., Dathorne, S. R., David, R.,

Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A.,

Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H.,

Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J.,

Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M.,

Falls, T., Feirsquto, D., Flagy, M., Ford, J., Foster, P., Frantz, P.,

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Falls, T., Feirsquto, D., Flagy, M., Ford, J., Foster, P., Frantz, P.,

Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R.,

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Hemsi, F., Howard, S., Huber, J., Hulyk, S., Hume, J., Jackson, L.E.,

Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S.,

Kratovic, J., Klart, J., Landry, N., Leal, B., Lewis, L.C., Levis, L.

Kratovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L.C., Levis, L.

Li, J., Li, Z., Lichtarge, O., Lieu, C., Liu, J., Liu, M., Louiseged, H.,

Lozado, R.J., Lu, X., Lucier, A., Lucier, R., Luna, R., May, J.,

Manser, M., Wasi, D., Newtson, J., Newtson, M., Mel, G., Metzker, M.,

Massey, E., Mawhiney, E., MacLeod, M. P., MacLon, M., Mel, G., Metzker, M.,

Moser, M., Rojas, A., Rojubokan, I., Rolfe, M., Ruiz, S., Savery, G.,

Socherer, S., Scott, G., Shen,
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1 (bases 1 to 155023)
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Direct Submission
Submitted (19-MAY-2002) Human Genome Sequencing Center, Depar of Molecular and Human Genetics, Baylor College of Medicine, Baylor Plaza, Houston, TX 77030, USA
On May 3, 2002 this sequence version replaced g1:20335511.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (11-MAR-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
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Direct Submission
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NOTE: This is a 'working draft' sequence. It currently
consists of 12 contigs. The true order of the pieces
is not known and their order in this sequence record is
arbitrary. Gaps between the contigs are represented as
runs of N, but the exact sizes of the gaps are unknown.

This record will be updated with the finished sequence
as soon as it is available and the accession number will
be preserved.
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Chemistry: Dye-primer Bodipy: 5% of reads
Chemistry: Dye-terminator Big Dye: 95% of reads
Chemistry: Dye-terminator Big Dye: 95% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 141522 bases at least Q40
Consensus quality: 147097 bases at least Q30
Consensus quality: 147097 bases at least Q30
Consensus quality: 150442 bases at least Q30
Estimated insert size: 150706; sum-of-contigs estimation
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Center code: BCM
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contig of 10385 bp in 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chen, G., Chen, R., Chewahry, I., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A., Davila, M.L., Davis, C., Davy-Carroll, L., Ding, Y., Dinh, H.H., Dellaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Dellaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Dellaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Dellaney, K.R., Dinh, H.H., Dellaney, K.R., Dinh, H.H., Dellaney, K., Dinh, H.H., Dellaney, K., Dinh, H.H., Dellaney, K., Dinh, H.H., Dellaney, K., Escotto, M., Earnbart, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, D., Hodgson, A., Hogues, M., Holloway, C., Hollins, B., Harris, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J., Homsi, F., Hodgson, A., Hogues, M., Holloway, C., Hollins, B., Homsi, F., Hodgson, A., Hogues, M., Holloway, C., Hollins, B., Homsi, F., Hodgson, A., Hogues, M., Holloway, C., Hollins, B., Harris, C., Harris, K., Martin, J., Kovar, C., Lewis, L., Li, J., Liu, Y., Johnson, R., Jolivet, S., Joudah, S., Karlsson, E., Klueshi, A., Landry, N., Leal, B., Lewis, L.C., Lewis, L., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Loulseged, H., Lozado, R.J., Lucier, A., Lucier, R., Luna, R., Martindel, A., Martinez, E., Maheshwari, M., Mapua, P., Martin, R., Martindel, A., Martinez, E., Maheshwari, M., Mapua, P., Martin, R., Martindel, A., Martinez, E., Nuckenkwo, S., Oguh, M., Okwuonu, G., Oragunye, N., Vickens, R., Paimus, E., Put, L.L., Quilles, M., Ren, Y., Ren, Y., Pacce, A., Payton, B., Peery, J., Peerz, L., Peters, L., Stanley, H., Stone, H
                                                                                                                                                                   Submitted (24-AUG-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA on Aug 23, 2002 this sequence version replaced gi:22296903.
                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (01-JUL-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
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Weinstock,G. and Gibbs,R.
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Homo sapiens chromosome 12 clone RP11-977G19, WORKING DRAFT
SEQUENCE, 5 unordered pieces.
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Web site: http://www.hgsc.bcm.tmc.edu/
Drafting Center Code: BCM
                                                                          Center: Baylor College of Medicine Center code: BCM
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                                                                                                                                     Genome Center
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Db 171787 TAAGGGGTTGTTGGAGAACCAATTAGAAAGTTAGGCTGATATCCTTGTCCTCCTCTTTGG 171728
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Best Local Similarity:
Query Match:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                               69 MetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                     49 ValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluIleCysAspArg
                                                                                                                                                                                                                                       89 ValGlyArgAsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArgIleAspSerAsp 108
                                                                                                                                 ATTAGCGGCACCCTCAAGTTTGCGGTGAGCTATGGGGAATCGGTAGCTGGTTCTTGGACAT 171788
                                                                                                                                                                                                           GTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTACAAGGCATCCGAATCGACTCAGAT 171848
                                                                                                                                                                                                                                                                                                                    NOTE: Estimated insert size may differ from sequence length
(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently
consists of 5 contigs. The true order of the pieces
is not known and their order in this sequence record is
arbitrary. Gaps between the contigs are represented as
runs of N, but the exact sizes of the gaps are unknown.
This record will be updated with the finished sequence
as soon as it is available and the accession number will
be preserved.
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2994
6687
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/db_xref="taxon:9606"
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481.00
63.80%
63.19%
56.72%
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2993: gap of unknown length
6686: contig of 3693 bp in length
6786: gap of unknown length
17251: contig of 10465 bp in length
17351: gap of unknown length
85894: contig of 68543 bp in length
85994: gap of unknown length
182350: contig of 96356 bp in length.
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SOURCE
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                                                                                                                                        Barbarla, J. Benton, J. Blunge, K., Blankenburg, K., Benton, J. Blunge, K., Blankenburg, K., Bonnin, D., Bouck, J., Bowle, S., Brevan, K., Brown, E., Brown, M., Bryant, N. P., Bunkett, C., Burrell, K. L., Byrd, N. C., Chen, R., Chen, R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M. D., Dathorne, S. R., David, R., Delaney, K. R., Delgado, O., Denn, A. L., Ding, Y., Dinh, H. H., Douthwalte, K. J., Draper, H., Dugan-Rocha, S., Durbin, K. J., Earnhart, C., Edgar, D., Edwards, C. C., Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Guevara, W., Gunaratne, P., Hale, S., Hamilton, K., Herris, C., Harris, K., Harris, K., Harris, C., Harris, K., Kan, U., King, L., Korvah, J., Kovar, C., Kratovic, J., Kueshi, A., Landry, N., Leal, B., Lewis, L.C., Lewis, L., Lozado, R.J., Lu, X., Lucler, R., Luna, R., Martinez, E., Marrinez, E., Martinez, E., Marrinez, E., Marrinez, E., Marrinez, E., Marrinez, C., Hill, J., Liu, M., Louiseged, H., Massey, E., Mawhiney, E., McLeod, M.P., Meador, M., Morgan, M., Morris, S., McLeod, M.P., Meador, M., Martinez, E., Netze, A., Tameris, A., Tameris, A., Savery, G., Scherer, S., Scott, G., Shen, H., Shooshtari, N., Sisson, I., Sodergren, E., Sonatke, T., Sparks, A., Stanley, H., Margo, O., Martinez, E., Walley, K., Wango, O., Walley, K., Wango
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspAsnValLysAspLysLeuCysSerLysArgThrAsp-LeuCysAspHisAlaLeuH1 156
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                                                                                                         Wu,C., Wu,Y., Wu,Y.F., Zhou,J., Zorrilla,S., Weinstock,G. and Gibbs,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Muzny, D.M., Adams, C., Adio-Oduola, B., Ali-osman, F.R., Allen, C., Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Ayele, M., Banks, T.,
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Mammalia; Eutheria;
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                                                    Pred. No.:
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Direct Submission

Submitted (15-FEB-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Baylor Plaza, Houston, 'IX //טיטי, טיסה On Aug 4, 2002 this sequence version replaced g1:22094227
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Sequencing vector: Plasmid;
Chemistry: Dye-primer Bodipy: 2% of reads
Chemistry: Dye-terminator Blg Dye: 98% of reads
Chemistry: Dye-terminator Blg Dye: 98% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 183845 bases at least Q40
Consensus quality: 184449 bases at least Q30
Consensus quality: 185447 bases at least Q30
Consensus quality: 185447 bases at least Q30
Consensus quality: 185487 bases; sum-of-contigs estimation
Quality coverage: 8x in Q20 bases; sum-of-contigs estimation
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/db_xref-"taxon:9606"
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                                                                                                                                                                             /clone="RP11-183H16"
44751 c 45101 a
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                           5.01e-37
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63.80%
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4170: contig of 2030 bp in length
4270: gap of unknown length
8294: contig of 4024 bp in length
8394: gap of unknown length
14196: contig of 5802 bp in length
14296: gap of unknown length
14296: gap of unknown length
33076: contig of 18780 bp in length
33176: gap of unknown length
52395: gap of unknown length
52395: gap of unknown length
64185: contig of 31790 bp in length
84185: contig of 31790 bp in length
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Conservative:
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REFERENCE AUTHORS

ACCESSION VERSION

KEYWORDS

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                        Submitted (24-FEB-2001) Lita Annenberg Hazen Genome Sequencing Center, Cold Spring Harbor Laboratory, 1 Bungtown Road, Cold Spring Harbor, NY 11724, USA 3 (bases 1 to 207424)
MCCombie,W.R.
                                                                                                                                                                                                                            Mus musculus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus Loses 1 to 201424)
                                                                                                                                                                       McCombie,W.R., de la Bastide,M., Spiegel,L., Preston,R., Kirchoff,K., Kuit,K., Nascimento,L., Zutavern,T., Balija,V., Bell,M., Baker,J., Santos,L., Miller,B., Katzenberger,F., Muller,S., King,L., Yang,C., Palmer,L., O'Shaughnessy,A. and Dedhia,N.
 Submitted (26-JAN-2002) Lita
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                                                TCTGGGTCAATTCTCTGTCTTCTTGGTCCGCAGTGTGAGAGCATTGTGGAAGAATACGAG
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On Jan 26, 2002 this sequence version replaced gi:18201765.
This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest.
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                                                                                                                     Worley,K.C.
Direct Submission
Submitted (08-FEB-2002) Human Genome Sequencing Center, Depails Submitted (08-FEB-2002) Human Genetics, Baylor College of Medicine,
Submitted (13-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                              of Molecular and Human
Baylor Plaza, Houston,
3 (bases 1 to 101666)
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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                                                                                                                                                Department
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* This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
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(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

* NOTE: This is a 'working draft' sequence. It currently

* consists of 47 contigs. The true order of the pieces

is not known and their order in this sequence record is
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequencing vector: Plasmid; Chemistry: Dye-terminator Big Dye: 100% of reads Assembly program: Phrap; version 0.990329 Consensus quality: 60229 bases at least Q40 Consensus quality: 63959 bases at least Q30 Consensus quality: 66730 bases at least Q20
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Center clone name: CH230-319E6
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1. 101666
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/db_xref="taxon:10116"
/clone="CH230-319E6"
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                                                                                                                                                                                                                                               Submitted (14-SEP-1999) Biomolecular Informatics, Inc., 1201 Eastlake Ave. East, Seattle, WA 98102, Location/Qualifiers
                                                                                                                                                                                                                                                                                                                      2 (bases 1 to 649)
Sheppard, P., Jelinek, L.,
                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
1 (bases 1 to 649)
                                                                                                                                                                                                                                                                                            Direct Submission
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Unpublished
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/protein_id="AAF01431.1"
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                                                                                                   /gene="ZSIG9"
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/chromosome="12"
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/db_xref="dbEST:R15306"
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                                                                                       /gene="ZSIG9"
                                                                                                                                             /clone="IMAGE: 29675"
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USA
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                                                          Clone distribution: MGC clone distribution information can be foun through the I.M.A.G.E. Consortium/ILNL at: http://lmage.llnl.gov Series: IRAL Plate: 5 Row: p Column: 13
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 6014631.
                                                                                                                                                    Web site: http://www.nisc.nih.gov/
Contact: nisc_mgc@nhgri.nih.gov
Shevchenko,Y., Wetherby,K.D., Beckstrom-Sternberg,S.M.,
Benjamin,B., Blakesley,R.W., Bouffard,G.G., Brinkley,C., Brooks,S.,
Dietrich,N.L., Guan,X., Gupta,J., Ho,S.-L., Karlins,E., Legaspl,R.,
Lim,M., Maduro,Q.L., Masiello,C., Mastrian,S.D., McCloskey,J.C.,
McDowell,J., Pearson,R., Snyder,B., Stantripop,S., Thomas,P.J.,
Tiongson,E.E., Touchman,J.W., Tsurgeon,C., Vogt,J.L., Walker,M.A.,
Zhang,L.-H. and Green,E.D.
                                                                                                                                                                                                                                                                        cDNA Library Preparation: Rubin Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortiu DNA Sequencing by: National Institutes of Health Sequencing Center (NISC), Gaithersburg, Maryland;
                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
Submitted (17-NOY-2000) National Institutes of Health, Mammalian Sene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                     Web site:
                                                                                                                                                                                                                                                                                                                                                     Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                              NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Strausberg,R
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Mammalia; Eutheria;
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/organism="Homo sapiens"
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                                                       Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGGCAGCCAGTCAGTGGTGGAGGTA 456
                                                                                                                                                                            NEDO human cDNA sequencing project
                                                                                                                                                                     Unpublished
                                                                                                                                                                                                and Isogai, T
                                                                                                                                                                                                                                                                                                                                       Homo sapiens
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257.00
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194 c 233 g 176 t
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/clone_lib="NIH_MGC_16"
/lab_host="DH10B-R"
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Length: Matches: Conservative: Mismatches: Indels:

oligo capping; fis (full insert sequence).
Homo sapiens cerebellum cDNA to mRNA, clone_11b:BRACE2 AK094445 2378 bp mRNA linear Homo sapiens cDNA FLJ37126 fis, clone BRACE2022693, weakly similar

2 (bases 1 to 2378)
2 (bases 2 to 2378)
2 (bas Kawakami,B., Sugiyama,A., Takemoto,M., Sugiyama,T., Irie,R., Otsuki,T., Sato,H., Wakamatsu,A., Ishii,S., Yamamoto,J., Isono Kawai-Hio,Y., Saito,K., Nishikawa,T., Kinura,K., Yamashita,H., Matsuo,K., Nakamura,Y., Sekine,M., Kikuchi,H., Kanda,K., Wagatsuma,M., Murakawa,K., Kanehori,K., Takahashi-Fujii,A., Oshima,A., Suzuki,Y., Sugano,S., Nagahari,K., Masuho,Y., Nagai full insert sequencing: Isono, Y.,

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Percent Similarity:
Best Local Similarity:
Query Match:
Search completed: March 31, 2003, 03:42:06 Job time: 1675.7 secs
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379
                                                                                                                                                                                       434 GAGCTC 439
                                                                                            380 GACAAGCTGTGCAGTGAAAAATCAGATCTGTGTGAAACTTCT-----GCTAATCATACT 433
                                                                                                        141 AspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisIleSerHisAsp 160
                                                                    161 GluLeu 162
                                                                                                                                                                                                                                     200 AAGGAGAGAACTTTCAAGAGATTCGCTCCTAGGAAAGGAGACAAAATATATACCAAGAATTT 259
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
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/tissue_type="cerebellum"
/clone_lib="BRACE2"
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/note="doming vector: pME18SFL3"
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Command line parameters:

-MODEL-frame+ p2n.model -DEV-xlp
-O-/cgn2_1/USPTO_spool/VS10082502/runat_24032003_135100_6599/app_query.fasta_1.1308
-DB-EST -OFMT-fastap -SUFFIX-rst -MINMATCH-0.1 -LOOPCL-0 -LOOPEXT-0
-DB-EST -OFMT-fastap -SUFFIX-rst -MINMATCH-0.1 -TRANS-human40.cdi -LIST-45
-DCCALICK-200 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALIGN-15 -MODE-LOCAL
-DCCALICK-200 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALIGN-15 -MODE-LOCAL
-USER-US10082502_eCGN_1_1_5425_eTunat_24032003_135100_6599 -NCDPU-6 -ICPU-3
-NO_XLPXY -NO_MMAP -LARGEQUERY -NEG_SCORES-0 -WAIT -LONGLOG -DEV_TIMEOUT-120
-WARN_TIMEOUT-30 -THREADS-1 -XGAPOP-10 -XGAPEXT-0.5 -FGAPOP-6 -FGAPEXT-7
-YGAPOP-10 -YGAPEXT-0.5 -DELOP-6 -DELEXT-7
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Maximum Match 100%
Listing first 45 summaries
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     Xgapop 10.0,
Ygapop 10.0,
Fgapop 6.0,
Delop 6.0,
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em_gss_other:*
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CORGANISM

Homo sapiens

Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE

1 (bases 1 to 588)

AUTHORS

Ch, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, N.R.,

Oh, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and

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Contact: Kim YS
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Korea Research Institute of Bioscience & Biotechnology
52 Boeun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
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/cell_type="Epithelial"
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1 (bases 1 to 591)

Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R
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Fax: +82-42-860-4409
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Contact: Kim YS
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21C Frontier Korean
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/note-*Organ: Stomach; Vector: pTZ18RP1; Site_1: EcoRI; Site_2: NotI; The poly (A)+ RNA was decapped with tabacco acid pyrophosphatase (TAP) and ligated with DNA-RNA linker including EcoRI site by treatment of T4 RNA ligase. The first strand cDNA was synthesized from oligo dT-selected mRNA by priming with dT-tailed vector. The dT-tailed vector was adjusted to have about 60nt. The cDNA vector was circularized with E. coli DNA ligase after digestion of EcoRI which site is also included in vector. An RNA strand converted to a DNA strand by Okayama-Berg method. The obtained cDNA vectors were used for transformation of
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/clone-"S5SNU484s1-11-H01"
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{\tt HisArgLysAsnTyrValArgValValGlyArgAsnGlyGluSerSerGluLeuAspLeu}
                                             CTGCTGGAGGAGATATGTGACCGGATGAAGGAGTATGGGGGAACAGATTGATCCTTCCACC
                                                                                                                              GATGGCAGCCAGTCAGTGGTGGAGGTGCCTTATGCCCGCTCAGAGGCCCCACCTCACAGAG
                                                                                                                                                       AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaH1sLeuThrGlu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: dmelton@biohp.harvard.edu
Library was constructed by Dr. Hiroshi Inoue DNA sequencing by:
Washington University Genome Sequencing Center For information
obtaining a clone please contact: Dr. Hiroshi Inoue
(hinoue@im.wustl.edu)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "WALLOU, D., Brown, J., Kenty, G., Permutt, A., Lee, C., Kaestner, K., Lemishka, I., Scearce, M., Brestelli, J., Gradwohl, G., Clifton, S., Hillier, L., Marra, M., Pape, D., Wylie, T., Martin, J., Blistain, A., Schmitt, A., Theising, B., Ritter, E., Ronko, I., Bennett, J., Carden, M., Gibbons, M., McCann, R., Cole, R., Tsagareishvill, R., Williams, Jackson, Y. and Bowers, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tel: 617-495-1812
Fax: 617-495-8557
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Harvard University, Howard Hughes Medical Institute
Dept of Molecular and Cellular Biology, 7 Divinity Ave,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (2000)
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/db_xref="taxon:9606"
/clone="IMAGE:5085832"
/clone_lib="HR85 islet"
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/lab_host="DH10B"
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US-10-082-502-20 (1-162) x BM832888 (1-591)

Percent Similarity:
Best Local Similarity:
Query Match:

6.28e-103 848.00 100.00% 100.00% 100.00%

Conservative: Mismatches: Indels:

591 162 0 0

Length: Matches:

Gaps:

BASE COUNT ORIGIN

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VERSION KEYWORDS SOURCE

ACCESSION

RESULT 3 BI712899

DEFINITION LOCUS

B1712899 1d98f09.y1 similar to sequence. BI712899 BI712899.1 EST. human.

HR85 islet Homo sapiens TR:Q9Y2B0 Q9Y2B0 TYPE I

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          http://image.llnl.gov
Plate: LLCM2461 row: c column: 06
High quality sequence start: 208
High quality sequence stop: 350.
Location/Qualifiers
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 673)
NIH-MGC http://mgc.nci.nih.gov/.
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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AGENCOURT_8211118 NIH_MGC_102
5', mRNA sequence.
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                                                                                                                                                                  /organism="Homo sapiens"
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/clone="IMAGE:6276413"
/clone=lib="NH_MGC_102"
/tissue_type="epidermoid carcinoma, cell line"
/tissue_type="epidermoid"
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                                                                                                                                                                                                        Email: cgapbs-r@mail.nih.gov
Tissue Procurement: David N. Louis, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
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national Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
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/clone="IMAGE:4150512"
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/db_xref="taxon:9606"
                                                                                                               Location/Qualifiers
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Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
1 (bases 1 to 719)
                                NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
                                                                                             mRNA sequence.
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BE733900.1 GI:10147892
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Site_2: Sall; Cloned unidirectionally. Primer: Oligo
Average insert size 1.57 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
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/db_xref="taxon:9606"
/clone=IIMAGE:3843209"
/clone_IIMAGE:3843209"
/clone_IIMAGE:3843209"
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/note="Organ: placents; Vector: pOTB7; Site_1: xhoI;
Site_2: ECORI; cDNA made by oligo-dT priming.
Directionally cloned into ECORI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies)."
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Plate: LLCM1737 row: k column: 13
High quality sequence stop: 740.
Location/Qualifiers
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Tissue Procurement: ATCC
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: NIH Intramural Sequencing Center
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
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National Institutes of Health, Mammalian
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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RCORI; CDNA made by oligo-dT priming. Directionally
cloned into EcoRI/XhoI sites using the following 5'
adaptor: GGCACGAG(G). Size-selected >500Dp for average
insert size 1.8kb. Library constructed by Ling Hong in
the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-CDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies)"
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/db_xref="taxon:9606"
/clone="IMAGE:4868100"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
Tlssue Procurement: DCTD/DTP
cDNA Library Preparation: Ling Hong/Rubin Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at: image.llnl.gov
plate: LLCM/79 row: k column: 22
High quality sequence stop: 739.
Location/Qualifiers
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National Institutes of Health, M
Unpublished (1999)
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                                                                                                                                                                                                                    /lab_host="DHIOB (phage-resistant)"
/lab_host="DHIOB (phage-resistant)"
/note="Organ: lung: Vector: pOTB7; Site_1: XhoI; Site_2: EcoRI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies)."
a 180 c 237 g 146 t
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/clone="IMAGE:3936141"
/clone_1ib="NIH_MGC_7"
/tissue_type="small cell carcinoma"
/cell_line="MGC3"
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Conservative:
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Indels:
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                                                                                                                                Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC/DCTD/DTP
CDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutel Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo 1 (bases 1 to 930)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection Unpublished (1999)
                                                                                                    http://image.llnl.gov
Plate: LLAM13509 row: i column:
High quality sequence stop: 515.
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BQ437660
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/clone="IMAGE:6159938"
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/note="Organ: skin; Vector: pCMV-SPOR"
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sapiens cDNA clone
  PCMV-SPORT6;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eut
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Ho
E 1 (bases 1 to 1117)
S NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collectio
L Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs -r@mail.nih.gov
Tissue Procurement: DCTD/DTp
cDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LL
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AGENCOURT_6572552 NIH_MGC_41
5', mRNA sequence.
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                                                                                                    GACAAACTTTGCAGTAAGCGAACAGATCTTTGTGACCATGCCCTGCACATATCGCATGAT
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Plate: LLCM.1968 row: C column: 07
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258 c 320 g 239 t 1 others
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/clone_lib="NIH_MGC_41"
/tissue_type="amelanotic melanoma, cell line"
/lab_host="DH10B (phage-resistant)"
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  ATTGCCCAGGTGGACCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCAGAT
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Hillier,L., Marra,M., Pape,D., Wylle,T., Marrin,J., Blistain,
Schmitt,A., Theising,B., Ritter,E., Ronko,I., Bennett,J., Car,
M., Gibbons,M., McCann,R., Cole,R., Tsagareishvili,R., Willi,
Jackson,Y. and Bowers,Y.
Endocrine Pancreas Consortium
Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: dmelton@biohp.harvard.edu
Library was constructed by Dr. Hiroshi Inoue
Washington University Genome Sequencing Cente
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Douglas Melton, Klaus H. Kaestner, & Hiroshi
Endocrine Pancreas Consortium
Harvard University, Howard Hughes Medical Institute
Dept of Molecular and Cellular Biology, 7 Divinity Ave
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Seq primer: -40UP from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tel: 617-495-1812
Fax: 617-495-8557
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                          /note="Organ: Pancreas; Vector: pBluescript SK(-); Site_1: NotI; Site_2: XhoI; cDNA made by oligo-dT priming.
Size-selected on agarose gel. Average insert size -lkb. 5'
XhoI site was destroyed after directional cloning.
Amplified once. Contact information: Hiroshi Inoue, MD,
Amplified once. Contact information: Hiroshi Inoue, MD,
Metabolism Div. (Alan Permutt Lab), Washington University
School of Medicine, Box 8127, 660 South Euclid Ave., St.
Louis, MO 63110, E-mail: hinoue@imgate.wustl.edu, Tel:
314-362-1916, Fax: 314-747-2692."
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/tissue_type="Purified pancreatic islet"
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/clone="IMAGE:5085832"
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Divinity Ave, Cambridge,
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM13303 row: a column: 01
                                                                                                                                                                                                                                                                                                                                    Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC/DCTD/DTP
                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 880)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
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AGENCOURT_7801623 NIH_MGC_72
5', mRNA sequence.
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EST.
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                                                                           /tissue_type="melanotic melanoma"
/lab_host="0H108 (phage-resistant)"
/note="Organ: skin; vector: pCMV-SPORT6;
Site_2: Sali; Cloned unidirectionally. E
Average insert size 2 kb. Library const
Technologies."
                                                                                                                                                    /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:6050568"
/clone_lib="NIH_MGC_72"
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                                               S NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection ()

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Miklos Palkovits, M.D., Ph.D.

CDNA Library Preparation: Michael J. Brownstein (NHGRI), S

CDNA Library Preparation: Michael J. Brownstein (NHGRI), S

CDNA Library Incompared by: The I.M.A.G.E. Consortium (LINL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
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http://lmage.llnl.gov
Plate: LLAW11666 row: 1 column:
High quality sequence stop: 730.
Location/Qualifiers
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Mammalia; Eutheria;
1 (bases 1 to 783)
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          5, mRNA sequence.
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BQ421069.1 GI:21116384
EST.
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AGENCOURT_7911956 NIH_MGC_68
5', mRNA sequence
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/db_xref="taxon:9606"
/clone="IMAGE:5264328"
/clone_lib="NIH_MGC_95"
/tissue_type="hippocampus"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note-"organ: brain; Vector: pBluescriptR (modified pBluescript KS+); Site-I: BamHI; Site-2: SalI-XhoI (gtcgag); Oligo-dT primed using primer 5'-TTTTTTTTTTTTTVN-3', size-selected for average insert size 2.5 kb and normalized to ROT 5. This is a primary library enriched for full-length clones and constructed using the Cap-trapper method (Carninci, in preparation). Library constructed by M. Brownstein (NIH/NHGRI, National Institutes of Health). Note: this is a NIH_MGC Library."

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AspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisIleSerHisAsp
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Tissue Procurement: DCTD/DTP/Gazdar
Tissue Procurement: DCTD/DTP/Gazdar
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM13197 row: d column: 14
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collections
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Contact: Robert Strausberg,
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/dlone=_Iib="NACE:600949"
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/note="Organ: lung; Vector: pcMV-SPORT6; Si
Site_2: Sali; Cloned unidirectionally. Pri
Average insert size 1.8 kb. Library const
Technologies."
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Email: cgapbs-remail.nih.gov
Tissue Procurement: Miklos Palkovits, M.D., Ph.D.
cDNA Library Preparation: Michael J. Brownstein (NHGRI), g
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
cma Library Arrayed by: The I.M.A.G.E.
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Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
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National Institutes of Health, Mammalian Gene Collection (MGC)
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Brownstein (NHGRI), Shiraki
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
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Gerritsen, Mary E.
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Desnoyers, Luc
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Wood, William
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Stewart, Timothy A.
                                                                                                    Tumas,Daniel
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: SECRETED AND THE SAME
FILE REPERIOR: P33071217
CUBRENT EPPLICATION NUMBER: US/10/121,049
CURRENT FILING DATE: 2002-04-12
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEO ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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APPLICANT: Beresini, Mauree
APPLICANT: Desorge, Laure
APPLICANT: Desonoyers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wel-Qiang
APPLICANT: Gerritsen, Mary
APPLICANT: Goddard, Audrey
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Filvaroff, Ellen
Gao, Wei-Olang
Gerritsen, Mary E.
Goddard, Audrey
Goddwski, Paul J.
Gurney Austin L.
Sherwood, Steven
Smith, Victoria
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Wood, William
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APPLICANT: Beresini, Mau
APPLICANT: Berosers, Lu
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APPLICANT: Gao, Wei - () an
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APPLICANT: Gertisen, Madr
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APPLICANT: Smith, Victor
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
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CURRENT FILING DATE: 2002-04-16
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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; LENGTH: 1210
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US-10-140-470-173
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Score:
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                                                                                                                                                            Percent Similarity:
Best Local Similarity:
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APPLICANT: Beresti
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APPLICANT: Desnoy,
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APPLICANT: Gao, We
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APPLICANT: Godows
APPLICANT: Gurney
APPLICANT: Sterwo
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APPLICANT: Stewar
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CURRENT FILING DATE: 2002-05-06
Prior Application removed - See Palm or E!
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C160
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Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
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Wood,William
Zhang, Zemin
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Filvaroff, Ellen
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Query Match:
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
ORGANISM: Homo Sapien
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US-10-082-502-20 (1-162) x US-10-175-746-173 (1-1210)
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C353
CURRENT APPLICATION NUMBER: US/10/175,746
CURRENT FILING DATE: 2002-06-19
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Wood,William
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Gurney, Austin L.
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Filvaroff, Ellen
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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Publication No
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                                                                                                                          CURRENT APPLICATION NUMBER: US/10/176,918
CURRENT FILING DATE: 2002-06-20
                                                                                                                                                  APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C382
                                                TYPE: DNA ORGANISM:
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A
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Filvaroff, Ellen
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                                                                                                                                                                                                                                                                                                 Sequence 173, Applic Publication No. US20 GENERAL INFORMATION:
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APPLICANT: Beresini, Ma
APPLICANT: DeForge, Lau
APPLICANT: Desnoyers, I
                     TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES TITLE OF INVENTION: ACLDS ENCODING THE SAME FILE REFERENCE: P3330R1C28
CURRENT APPLICATION NUMBER: US/10/176,921
CURRENT FILING DATE: 2002-06-20
Prior Application removed - NUMBER OF SEQ ID NOS: 550
                                                                                    APPLICANT:
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
                                                                                    Zhang, Zemin
                                                                                                                                   Stewart, Timothy
                                                                                                                                                  Smith, Victoria
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Filvaroff, Ellen
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                                                                                                Wood, William
                                                                                                             Watanabe, Colin K
                                                                                                                       Tumas, Daniel
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D. US20030027276A1
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RESULT 9
US-10-137-865-173
Sequence 173, Application US/10137865
Publication No. US20030032155A1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Maureen
APPLICANT: Desnoyers Luc
APPLICANT: Desnoyers Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Genvieren, Mary
APPLICANT: Goodard, Audrey
APPLICANT: Goddard, Audrey
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Godowski, Paul J.
APPLICANT: Sherwood, Steven
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; ORGANISM: Homo
US-10-176-921-173
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1210
DeForge, Laura
Desforge, Laura
Desnoyers, Luc
Filvaroff, Ellen
Gao, Wei-Qiang
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
Watanabe, Colin K
Wood, William
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; APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POI
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C154
CURRENT APPLICATION NUMBER: US/10/137,865
CURRENT FILING DATE: 2002-05-03
PRIOR APPLICATION removed - See Palm or File Wrap:
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
OPPLANTEN: Harma Sanian
Sequence 173, Application US
Publication No. US2003003215
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Mauree
APPLICANT: DeForge, Laura
APPLICANT: DeForge, Laura
APPLICANT: DeForge, Luca
APPLICANT: Tivaroff, Ellen
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gao, Wei-Qiang
APPLICANT: Goddard, Audrey
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US-10-140-474-173
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Desnoyers, Luc
Filvaroff, Ellen
         Gao, Wei-Qiang
Gerritsen, Mary
                                                          Beresini, Maureen
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o. US20030032156A1
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RESULT 11
US-10-142-431-173
; Sequence 173, Application US/10142431
; Publication No. US20030036179A1
; GENERAL INFORMATION:
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; ORGANISM: Homo Sapien
US-10-140-474-173
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C162
CURRENT APPLICATION NUMBER: US/10/140,474
CURRENT FILING DATE: 2002-05-06
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Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
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; Prior Application removed - So; NUMBER OF SEQ ID NOS: 550; SEQ ID NO 173; SEQ ID NO 173; LENGTH: 1210; TYPE: DNA; ORGANISM: HOMO Sapien
US-10-142-431-173
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CURRENT FILING DATE: 2002-05-10
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APPLICANT: Beresini, Ma
APPLICANT: DeForge, La
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Filvaroff, Ellen
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Watanabe, Colin K
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Gerritsen, Mary
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US-10-143-114-173
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CURRENT APPLICATION NUMBER: US/10/143,114
CURRENT FILING DATE: 2002-05-09
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121 ValGluGluTyrGluAspGluLeuTleGluPhePheSerArgGluAlaAspAsnValLys
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SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
ORGANISM: Homo Sapien
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                                                                                                                                                                                                   Percent Similarity:
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C244
CURRENT APPLICATION NUMBER.
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CURRENT FILING DATE: 2002-05-10
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Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
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Gerritsen, Mary E.
Goddard, Audrey
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Watanabe, Colin K
Wood, William
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Percent Similarity:
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DB:
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US-10-123-262-173
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APPLICANT: Beresini, Mau
APPLICANT: Berose, Lau
APPLICANT: Desnoyers, Lu
APPLICANT: Desnoyers, Lu
APPLICANT: Gao, Wei-Oilan
APPLICANT: Gao, Wei-Oilan
APPLICANT: Goddard, Audr
APPLICANT: Goddwski, Pau
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APPLICANT: Godwski, Pau
APPLICANT: Sherwood, Ste
APPLICANT: Snith, Victor
APPLICANT: Stewart, Timo
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                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/123,262
CURRENT FILING DATE: 2002-04-15
                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C38
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Godowski, Paul J.
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Sherwood, Steven
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Wood, William
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-DB-Issued_Patents_NA -QFMT=fastap_SUFFIX-rn1 -MINMATCH=0.1 -LOOPCL-0
-LOOPEXT=0 -UNITS-bits -START=1 -END=-1 -MATRIX-blosum62 -TRANS-human40.cd1
-LIST=45 -DCCALLGN=200 -THR_SCORE-pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE-LOCAL -QUTEMT=pto -NORM-ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=20000000
-USER-US10082502_@CGN_1_1_131_@runat_24032003_135100_6616 -NCPU=6 -TCPU=3
-NO_XLPXY -NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -LONGLOG -DEV_TIMEOUT=120
-WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPEXT=7
-YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCTUS_COMB.seq:*
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Sequence 1, Appli
Sequence 208, App
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Sequence 24, Appli
Sequence 24, Appli
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US-09-163-285-3
; Sequence 3, Application US/09163285
; Patent No. 6204013
; GENERAL INFORMATION:

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RESULT 1

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TITLE OF INVENTION: N
TITLE OF INVENTION: NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE:
                           TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Boston
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Sequence 5, Appli							Sounds of the second	Segmence	Sequence	Sequence	Sequence	Sequence 38	Sequence	Sequence 38	Sequence 38	Sequence 38	Sequence 38,		Sequence 38,	Sequence 3,	Sequence	Sequence	Sequence	Patent No.	sequence			eductice	chronce			D	D (Sequence 1 Appl

ALIGNMENTS

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INFORMATION FOR
                          NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,207 REFERENCE/DOCKET NUMBER: MN. TELECOMMUNICATION INFORMATION: TELEPHONE: (617)227-7400
                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/0:
FILING DATE: June 24, 19:
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy i
                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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28 State Street
                 (617)742-4214
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                                                                                                                                                                                                                                                                                                   Release #1.0,
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Query Match:
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Patent No. 6204013
GENERAL INFORMATION:
APPLICANT: Khodadoust, Mehran
TITLE OF INVENTION: NOVEL MSP-5 PROTEIN AND NUCLEIC ACID MOLECULES
TITLE OF INVENTION: AND USES THEREOF
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                      ZIP: 02109
                                                                                                                                              STREET:
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                                                                                                           Massachusetts
                                                                                                                                            28 State Street
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Percent Similarity:
Best Local Similarity:
Query Match:
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US-09-163-285-1
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Sequence 14, Application US/09724864 Patent No. 6380362
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NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: MNI-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEFAX: (617)742-4214
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                    128 LeuIleGlu---PhePheSerArgGluAlaAspAsnValLysAspLysLeuCys 144
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27 ProLysLysThrIleGlnMetGlySerPheArgIleAsnProAspGlySerGlnSerVal 46
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspArgMetLysGluTyrGlyGluGlnIleAspProSerThrHis-----ArgLysAsn
                                                                                                                                                                                                                                                                                                     AspLeuGlnGlyIleArgIleAspSerAspIleSer-----
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                                                                                                     GTGGGAGACTGGTACTTCCACCATCAGGAGCAGCCCCCTACAAAATTTTCTCTGT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValGluValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluIleCys 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
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Indels:
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APPLICANT: Watson, James G.

APPLICANT: Murison, James G.

TITLE OF INVENTION: Polynucleotides, polypeptides expressed

TITLE OF INVENTION: Polynucleotides and methods for their use.

FILE REFERENCE: 11000.1050U1

CURRENT APPLICATION NUMBER: US/09/724,864

CURRENT FILING DATE: 2000-11-28

PRIOR APPLICATION NUMBER: U.S. No. 6380362 60/171,678

PRIOR APPLICATION NUMBER: U.S. No. 6380362 60/171,678

PRIOR FILING DATE: 1999-12-23

NUMBER OF SEQ ID NOS: 72

SOFTWARE: FastSEO for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-082-502-20 (1-162) x US-09-724-864-14 (1-915)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                   Sequence 10, Application Patent No. 5766597 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 915
TYPE: DNA
ORGANISM: Mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                         TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                            452 TACCTGGGTGAGTTTGGAGAGCAGACCAGATCTATGAAGCCTACCGCCAAGGCCAAGCGAAT 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       341 CAGATGAAGCGTCTCACGGGCCCAGGACTTAGCAAGGGGCCAGAG-------CCAAGA 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      251 TTGCAGGAGCTG------AGTGAATCCACGTACACAGATGTCCTGGACCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           218 GAGGCTAAATCTCAC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             85 TyrValArgValValGlyArgAsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArg 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66 CysAspArg---MetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsn 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 LeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAlaGlnVal 25
                                                                                                                                                                                                                                                                HisAspGluLeu 162
                                                                                                                                                                                                                                                                                                                                    ValLysAspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisIleSer 158
                                                                                                                                                                                                                                                                                                                                                                                                                IleValGluGluTyr---GluAspGluLeuIleGluPhePheSerArgGluAlaAspAsn 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCAGCGTGATGATTTCTGGGGGTCCCTGGCCCAATAGGCTCTCCAAGACGTGTTTCCAC 451
                                                                                                                                                                                                                          AGAGAAGAGCTT 583
                                                                                                                                                                                                                                                                                              CTGGAGGCGCTGCTGTGGGGGCACCCATGGGCCCTGCTCACAGGAGATCCTGGCCCAG 571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IleAspSerAspIleSerGly-----ThrLeuLysPheAlaCysGluSer 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ValValGluValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluIle
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCGCTGCGATGCCTGCCGGGTGTGGCCTTCCAGATGGGGCAACGTCTGGCGAAAGCA 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCTCTCAGAACTGGCAGTCCTATGGA-----
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                                                         Paoletti, Enzo
de Taisne, Cha
                                            John A.
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TELEFAX: (212) 840-0712
TELEX: 42506 CURTMS
INFORMATION FOR SEQ ID NO: 10
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US
FILING DATE: 18-MAR-19
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US
                                      1432 GATAATAAGGAAAGAAAATATTCATTAATAACATTAAAAAACAAATTGATTTAGAAGAA 1491
                                                                                                                    1372 TCATATGGTGATTTAATGAATCCTGATACTAAAGAAAAAATTAATGAAAAAATTATTACA 1431
                                                                                                                                                                                                                                                                                                                                                           1252 AAATCACAAGATCCTACGAAATCTGTTCAAATACCAAAAGTTCCTTATCCAAATGGTATT 1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 25,506
REFERENCE/DOCKET NUMBER: 454310-2570
TELECOMMUNICATION INFORMATION:
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PRIOR APPLICATION NUMBER. FILING NOTE: US 08/075,783
APPLICATION NUMBER. TILING NOTE: US 08/075,783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: U
FILING DATE: 11-JUN-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
103 IleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIleValGlu 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                                                                                                                                        71 GluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgValValGly 90
                                                                                                                                                                                                                                       56 AlaHis------LeuThrGluLeuLeuGluGluIleCys-----AspArgMetLys 70
                                                                                                                                                                                                                                                                                                                                                                                                                16
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TOPOLOGY: 111
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OPERATING SYSTEM:
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STATE: New York
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STREET: 5
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                                                                                                                                                                                                GTATATCCTTTACCACTCACTGATATTCATAATTCATTAGCTGCAGATAATGATAAAAAT 137:
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                                                                                      ArgAsnGlyGlu-----
                                                                                                                                                                                                                                                                                                                   PheArgIleAsnProAspGlySerGlnSerValValGluValProTyrAlaArgSerGlu 55
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530 Fifth Avenue,
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SYSTEM: PC-DOS/MS-DOS
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09-JUN-1994
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25th Floor
                                                                            -----SerSerGluLeuAspLeuGlnGly 102
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Mismatches:
Indels:
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Matches:
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Query Match:

158

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Alignment Scores:

US-09-724-864-14

RESULT 4 US-08-257-073-10

APPLICANT: APPLICANT: APPLICANT:

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Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Diskette, 3
COMPUTER: HP Vectra 486,
COPERATING SYSTEM; MSDOS
SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (301) 309-8512
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENY INFORMATION:
NAME: Brookes, A. Anders
REGISTRATION NUMBER: 36,373
REFERENCE/DOCKET NUMBER: PB:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Choi et. al.
TITLE OF INVENTION: Streptococcus pneumoniae Antigens and Vaccines
NUMBER OF SEQUENCES: 452
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1492 AAAAAAATTAATCAC------ACAAAAGAACAAAATAAAAAATTACTTGAA 1536
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PRIOR APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1597 TTTAATAATTATTTGACAAAGATGTCGTAGATAAAATATTCAGTGCAAGA 1647
                                                                                                    575 ATTTCTACTTTGGAACAAGAAGTTGCTACTGCTCAACATCAAGTAGATAATTTGAAAAAA 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123
     51
                                                                31 IleGlnMetGlySerPheArgIleAsnProAspGlySerGlnSerValValGluValPro 50
                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: double
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CITY: Rockville
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
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TyralaargSerGluAlaHisLeuThrGluLeuLeuGluGluIleCysAspArgMetLys 70
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GATTATGAAAAGTCAAAAAAGGATTATGAAGAATTACTTGAAAAATTTTATGAAATGAAA 1596
                                   CTTCTTGCTGGTGCG-----GATCCTGATGATGGCACAGAAGTTATAGAAGCTAAA 685
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9410 Key West Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                      1924 base pairs
                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (301)
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81.50
39.73%
21.92%
9.61%
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5/33
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Matches:
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RESULT 6
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APPLICANT: ASAKURA
APPLICANT: KIMURA,
APPLICANT: ABE, CH
APPLICANT: KAWAHAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Application US/08750152A Patent No. 5977331
                                                                                                                                                                                                                                 TELEFAX: 703-413-2220 INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 24,618
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-413-3000
                                                                                                                                                                                                                                                                                                                                FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: NORMAN F. OBLON
                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: PastSEQ Version 1.5
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                     ANTI-SENSE: NO ORIGINAL SOURCE:
                                                                                                                        MOLECULE TYPE:
                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 4394 base pairs
                                                                                                        HYPOTHETICAL:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: ALPHA-KETOGLUTARATE DEHYDROGENASE GENE NUMBER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           956 ACTAAAAAGCTGAATTG 973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      131 PhePheSerArgGluAlaAspAsn-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 806 AAAGAAGCAGAAGAAGCTGAGTTGGATAAAAAAGCTGATGAACTTCAAAATAAAGTTGCT 865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            145 SerLysArgThrAspLeu 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     896 ATATTACTTGGAGGGGCTGATNCTGAAGATGATACTGCTGCTCCTTCAAAATAAATTAGCT 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           866 GATTTA-----GAAAAAGAAATTAGTAACCTTGAA 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            111 GlyThrLeuLysPheAlaCysGluSerIleValGluGluTyrGluAspGluLeuIleGlu 130
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                                                                                                                                                                                                                                         TELEPHONE: YUJ - TELEPHONE: YUJ - TELEPHONE: 703-413-2220
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                                 STRAIN: ATCC13869
                                                        ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
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NAME/KEY:
                                                                                                                                                 TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: ARLINGTON
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                                                    Brevibacterium lactofermetum
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                                                                                                                              genomic DNA
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LOCATION: FEATURE:

FEATURE:

LOCATION: NAME/KEY: NAME/KEY:

; NAME/KEY: ; LOCATION: US-08-750-152A-1

LOCATION: FEATURE: FEATURE: NAME/KEY:

Alignment Scores:

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Percent Similarity:

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US-10-082-502-20 (1-162) x US-08-750-152A-1 (1-4394)
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Query Match:
                                                                                                                                                                                                                                      Sequence 3, Application US/09071035 Patent No. 6448043
                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Gil H. Choi
TITLE OF INVENTION: En
NUMBER OF SEQUENCES: 4
                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                3008 GGCATCACCGGCTCCCAGAAGCTTCCACACGGCCTTGAGACCAACATCTCCCGTGAAGAG
                                                                                                                                              CORRESPONDENCE ADDRESS:
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                                                                                           CITY: Rockville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             56 AlaHis-----LeuThrGluLeuLeuGluGluIleCysAspArgMetLysGlu
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                                                       Maryland
Y: USA
                                                                                                            E: Human Genome Sciences, Inc.
9410 Key West Avenue
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421..428
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307..312
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4243..4281
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Matches:
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RESULT 8
US-09-071-035-1
; Sequence 1, Application US/09071035
; Patent No. 6448043
; GENERAL INFORMATION:
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Best Local Similarity:
Query Match:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (301) 309-8504
TELEFAX: (301) 309-8512
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: A. Anders Brookes
REGISTRATION NUMBER: 36,373
REFERENCE/DOCKET NUMBER: PB
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: HP Vectra 486/33
OPERATING SYSTEM: MSDOS Version
SOFTWARE: ASCIT Text
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                    707 GATAAA 712
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                                                                                                                                                                                            647
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               56 AlaHisLeuThrGluLeuGluGluIleCysAspArgMetLysGluTyrGlyGluGln 75
                                                                                                                                                                                                                                                                                                                                                                  85 TyrValArgValValGlyArgAsnGlyGluSerSerGlu-----Leu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
TOPOLOGY: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage COMPUTER: HP Vectra 486/33
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                  GAAGTCGTGGACTATTACCGTGATGGTATCGAAGCAGGTTACTTCCGCACAGCTGGTTCA
                                                                                                                                                                                                                                                         AAAAACAAAGGCGTTGATTTTAATAAAGACTTAGATTTAACAAGCAAAGATTCA---CAA
                                                                                                                                                                                                               SerIleValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsn 138
                                                                                                                                                                                                                                                                                       AspLeuGlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGlu 118
                                                                                                                                                                                                                                                                                                                                                                                                    GTA----CCGAAAACATTAGAGGAATTAAAAAGAAGCTTCTAAAACAATTTACGAAAAATCC
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Matches:
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Indels:
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RESULT 7 US-09-071-035-3

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Query Match:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 1347 base pair
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: ASCIL 10A.
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
05/09/071,035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: A. Anders Brookes
REGISTRATION NUMBER: 36,373
REFERENCE/DOCKET NUMBER: PB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: (301) 309-8504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Enterococcus faecalis Polynucleotides and Polypeptides
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                119
                                                                                                                                                                              601
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                                                                                                                                                                                                                                                                          56 AlaHisLeuThrGluLeuLeuGluGluIleCysAspArgMetLysGluTyrGlyGluGln 75
                                                                                                                                                                                                                                                                                                                                      36 PheArgIleAsnProAspGlySerGlnSerValValGluValProTyrAlaArgSerGlu 55
                                                                                                                                                                                                                                                                                                                                                                                                    16 AspGluLeuGluTrpGluIleAlaGlnValAspProLysLysThrIleGlnMetGlySer 35
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SerIleValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsn 138
                                             AAAAACAAAGGCGTTGATTTTAATAAAGACTTAGATTTAACAAGCAAAGATTCA---CAA 774
                                                                                                           AACAAAGAAGTCGTTGGTGCTGGTTTTGACTCGTTAAATAACTATTACGCAATTGGAATG 717
                                                                                                                                TyrValArgValValGlyArgAsnGlyGluSerSerGlu---
                                                                                                                                                                            GTA---CCGAAAACATTAGAGGAATTAAAAGAAGCTTCTAAAACAATTTACGAAAAATCC 657
                                                                                                                                                                                                                                                                                                         GCCAAAATC-----GACGGCAAACAA-----TACGGCATTCCATTTAATAAATCG---
                                                                                                                                                                                                                                                                                                                                                                       GACACAATCGGCTGGAAAGATGCA-----GAGCCAATTCGTGAAGTATTGTTAGACGGC
                                                                           AspLeuGlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGlu 118
                                                                                                                                                                                                            IleAspProSerThr----
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Conservative:
Mismatches:
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Best Local Similarity:
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APPLICANT: Charle
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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STREET: """

CITY: Rockville
CTTATE: Maryland
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MEDIUM TYPE: Diskett
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TITLE OF INVENTION:
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ATTORNEY/AGENT INFORMATION:
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CURRENT APPLICATION DATA:
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                                                                                                                                                                       31 IleGlnMetGlySerPheArgIleAsnProAspGlySerGlnSerValValGluValPro 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH:
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                                GluTyrGlyGluGlnIleAspProSerThrH1sArgLysAsnTyrValArgValValGly 90
                                                                  TyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluIleCysAspArgMetLys 70
                                                                                                                                       CTTCTTGCTGGTGCG------GATCCTGATGATGGCACAGAAGTTATAGAAGCTAAA 811
GAACTTGAAAAACTTCTTGACAGCCTTGATCCTGAAGGTAAGACTCAGGATGAATTAGAT 931
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3752 base pairs
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Streptococcus pneumoniae Polynucleotides and Sequences
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Best Local Similarity:
Query Match:
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Sequence 1, AFF-
; Patent No. 5955277
; Patent INFORMATION:
"Ansen, T
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; ORGANISM: human
US-08-850-993-1
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SOFTWARE: FastSEQ for
SEQ ID NO 1
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APPLICANT: Pedersen, Oluf B.
TITLE OF INVENTION: Mutant cDNA Encoding The p85alpha
TITLE OF INVENTION: Subunit of Phosphatidylinositol 3-
FILE REFERENCE: 4802.200-US
CURRENT APPLICATION NUMBER: US/08/850,993
CURRENT FILING DATE: 1997-05-05
EARLIER APPLICATION NUMBER: 0539/96
EARLIER FILING DATE: 1996-05-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Hansen, Torben
1522 GAAGAACAGTGCCAGACC---CAAGAGCGGTACAGCAAAGAATACATAGAAAAGTTTAAA 1578
                                                                         1465
                                                                                                                          1423 GAATATGATAGATTATATGAAGAATATACCCGCACA-----TCCCAG 1464
                                                                                                                                                                                         1363 ATTGAAGCTGTAGGGAAAAAATTACATGAATATAACACTCAGTTTCAAGAAAAAAGTCGA 1422
                                                                                                                                                                                                                                                                                                                       1276 CTAGCTCAGTATAATCCCCAAATTGGATGTGAAATTA------CTTTATCCAGTA 1323
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                            -----AlaCysGluSerIleValGluGluTyrGluAspGluLeuIleGluPhePheSer 133
                                                               GAAATCCAAATGAAAAGGACAGCTATTGAAGCA---TTTAATGAAAACCATAAAATATTTT 1521
                                                                                                                                                          Arg------LysAsnTyrValArgValValGlyArgAsnGlyGluSerSer 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyThrLeuLysPheAlaCysGluSerIleValGluGluTyrGluAspGluLeuIleGlu 130
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Conservative:
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DB:
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Best Local Similarity:
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Patent No.
                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 25
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-887-1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: PCT/
FILING DATE: 31-JAN-1996
ATTORNEY/AGENT INFORMATION:
NAME: MURASH19e, Kate H
REGISTRATION NUMBER: 29,
                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 536
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM: Windows Version SOFTWARE: FastSEQ for Windows Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 27
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
320 CTGAACAAAGTCAAACCAAGCTGGAGAGACAAATGGTTCATACCATTGAAGTACCTAAAA
                                                                     260
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                            74 ---GluGlnIleAspProSerThrH1sArgLys------AsnTyrValArg
                                                                                     57 HisLeuThrGluLeuLeuGluGluIleCysAspArgMetLysGluTyrGly------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  146 LysArgThrAspLeuCysAspHisAlaLeuHisIleSerHisAsp 160
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TOPOLOGY: li
                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/894,017 FILING DATE: 31-JUL-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                          CACAAACTGGAAATCCAGCGACCAATTTGCCAGAGGCTCAAGGAAGTGCGAGTAAGCAAG
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5. 6024958
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OF COMPETITION WITH STREPTOCOCCUS
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Matches:
Conservative:
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Indels:
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Best Local Similarity:
Query Match:
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US-08-961-527-103
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                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
TELEPHONE: (301) 309-8504
TELEPAX: (301) 309-8512
INFORMATION FOR SEQ ID NO: 103:
SEQUENCE CHARACTERISTICS:
LENGTH: 5558 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 103, Application US/08961527
Patent No. 6420135
GENERAL INFORMATION:
APPLICANT: Charles Kunsch
                               COMPUTER: HP Vecta COMPUTER: HP Vecta COMPUTER: HS Version 6. OPERATING SYSTEM: MSDOS Version 6. SOFTWARE: ASCII Text CURRENT APPLICATION DATA:

CURRENT APPLICATION DATA:

CONTRACTON NUMBER: US/08/961,527
                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: Brookes, A. Anders
REGISTRATION NUMBER: 36,373
REFERENCE/DOCKET NUMBER: PB340P1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb
COMPUTER: HP Vectra 486/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Streptococcus pneumoniae Polynucleotides and Sequences NUMBER OF SEQUENCES: 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       550 CAATATAAATCGGATGTAGCTGCTCATGAGGCAGAAGTTGCT 591
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     125 GluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLysAspLysLeuCys 144
                                                    14 LeuValAspGluLeu-------GluTrpGluIleAlaGlnValAspProLys 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 9410 Key
CITY: Rockville
STATE: Maryland
29 LysThrIleGlnMetGlySerPheArgIleAsnProAspGlySerGlnSerValValGlu 48
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75.00
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Matches:
Conservative:
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Indels:
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	TYPE: DNA	
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	: TYPE: nucleic acid	
	CHARACTERISTICS:	
	TRECEPAX: 301-309-8439	
	TELEPHONE: 301-	
	REFERENCE/DOCKET NUMBER: PF268	
	ION NUMBER: 36,373	
	Y/AGENT INFORMAT	
	FILING DATE: 11-APR-1996	
	DATA:	
	CLASSIFICATION: 435	
	מ מ	
	CURRENT APPLICATION DATA:	
	SYSTEM: PC-DOS/MS-DOS	.
	; COMPUTER: IBM PC compatible	
	READABL	
	ZIP: 20850	
	STATE: MD	
	Rockville	
	SEE: Hu	
	CE ADDRESS:	
	: NUMBER OF SEQUENCES: 8	
	al.	
	O. 5945303	
	; Sequence 1, Application US/08837029	
	3	
	Db 2514 AGCCGTACGGAGAACATCACGCACCGACTGTCTTTCAGCAAGGACAGAGTG 2564	_
	Qy 146 LysArgThrAspLeuCysAspHisAlaLeuHisIleSerHisAspGluLeu 162	_
251	Db 2454 TTCAGCCATTTTCATATAGAGGTCATTGATACGAGCTTCAGCTTTGAAAAGCTCATCAAA	_
145	Qy 141AspLysLeuCysSer	_
240	### 2410TRCITCLATGAGAGCATCAACATCCGCGCCGCCGC	_
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140	Ov 123 GluTvrGluAspGluLeuIleGluPhePheSerAraGluAlaAspAsnValLvs	_
241	Db 2379 ATAGAAATCACGACTCTCCAGACGGTCTTGAAGTTCTCC	_
122	\spSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIleValGlu	_
237	ACACCAAGAGCACGCGCTACTTCGTC	_
102	gAsnGlyGluSer	_
231	Db 2268 CAAAAGCACCTTGGTTCTTTGCCCACCTGACAAAGAAGTTACATCCGTATC	_
88	Qy 69 MetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgVal	
226	Db 2214 GTTGGTCGGCTCGTCCAACAGCAAGATATCAGGCTTTTCAAGGAGAAGTTTTGC	
83	uAlaHisLeuThrGluLeuLeuGluGl	_
221	Db 2154 GGCATTCTCATAGTTTTGGAGATAGCGCTTGAGCCAATCAAT	_

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RESULT 14
US-07-906-349A-1
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Query Match:
DB:
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                                                                                                                                                     Sequence 1, Application US/07906349A Patent No. 5434064 GENERAL INFORMATION:
                                                                                                                                                                                   Sequence
 APPLICANT: Schlessinger, Joseph
APPLICANT: Skolnik, Edward Y.
APPLICANT: Skolnik, Edward Y.
APPLICANT: Margolis, Benjamin L.
TITLE OF INVENTION: A NOVEL EXPRESSION-CLONING METHOD FOR
TITLE OF INVENTION: IDENTIFYING TARGET PROTEINS FOR EUKARYOTIC TYROSINE KINASES
TITLE OF INVENTION: TARGET PROTEINS
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: Browdy and Nelmark
STREET: 419 Seventh Street, N.W.
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FEATURE:
NAME/KEY:
LOCATION:
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                                                                                                                                                                                                                                                                    Leu 162
                                                                                                                                                                                                                                                                                      TTGCTATGTGGGGGGACCCCAGGGGGCCTGCTCAGAGAAGGTGTCAGCCACAAGAGAAGAG 605
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Washington
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RESULT 15
US-08-L67-035-1
; Sequence 1, Application US/08167035
; Patent No. 5618691
; GENERAL INFORMATION:
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Best Local Similarity:
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TELEPHAX: 202-737-3528
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARGTERISTICS:
LENGTH: 3372 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1279 CTAGCTCAGTATAATCCCAAATTGGATGTGAAATTA------CTTTATCCAGTA 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM CC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                146 LysArgThrAspLeuCysAspHisAlaLeuHisIleSerHisAsp 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/643,237
FILING DATE: 18-JAN-1991
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62 LeuGluGluIleCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThrHis 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22 IleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnProAsp ::::|||||| ::: |||
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TOPOLOGY: 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 30-JUJ
                                                                                                                                                            CGAATCAGTGAAATTATTGACAGTAGAAGAAGATTGGAAGAAGAC 1686
                                                                                                                                                                                                                                           CGTGAAGGCAATGAGAAAGAATACAAAGGATTATGCATAATTATGATAAGTTGAAGTCT
                                                                                                                                                                                                                                                                                   ArgGluAlaAspAsnValLys-------AspLysLeuCysSer 145
                                                                                                                                                                                                                                                                                                                                GAAGAACAGTGCCAGACC---CAAGAGCGGTACAGCAAAGAATACATAGAAAAGTTTAAA
                                                                                                                                                                                                                                                                                                                                                                    -----AlaCysGluSerIleValGluGluTyrGluAspGluLeuIleGluPhePheSer 133
                                                                                                                                                                                                                                                                                                                                                                                                                 GAAATCCAAATGAAAAGGACAGCTATTGAAGCA---TTTAATGAAACCATAAAAATATTT 1524
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluLeuAspLeuGlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPhe---
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TOPOLOGY: unk
MOLECULE TYPE:
     1468
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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LENGTH: 3372 base pair
                                                                                                                                             1366 ATTGAAGCTGTAGGGAAAAATTACATGAATATAACACTCAGTTTCAAGAAAAAAGTCGA 1425
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ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION:
                                                                         1426 GAATATGATAGATTATGAAGAATATACCCGCACA----
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                        97 GluLeuAspLeuGlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPhe--- 115
                                                                                                                                                                                 62 LeuGluGluIleCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThrHis 81
                                                                                                                                                                                                                                                     42 GlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGluLeu 61
                                                                                                                                                                                                                                                                                                                  22 IleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnProAsp 41 ::::||||| ::: |||
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STATE: New Yor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/167,035 FILING DATE: 16-DEC-1993
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Skolnick, Edward Y.
Margolis, Benjamin L
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                                                                                                                                                                              1525 GAAGAACAGTGCCAGACC---CAAGAGCGGTACAGCAAAGAATACATAGAAAAGTTTAAA 1581
                                          146
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                                                                                                                                134 ArgGluAlaAspAsnValLys------
                                        LysArgThrAspLeuCysAspHisAlaLeuHisIleSerHisAsp 160
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Search completed: March 31, Job time: 42.3198 secs 2003, 04:26:11

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-DB=N_Geneseq_101002 -QFMT=fastap -SUFFIX=rng -MINMARCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=bits=STARMS=1-bhuman40.cd1
-LIST=45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
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-NO_XLPXY -NO_MMAP -LARGEQUERY -NEG_SCORES=0 -NAIT -LONGLOG -DEV_TIMEOUT=120
-WARR_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPOEXT=0.5 -FGAPOP=6 -FGAPEXT=7
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RESULT 1
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ID AAZ3
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DT 09-F
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KW HP10
KW assa
KW agon
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OS Homo
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FH Key
FT CDS

09-FEB-2000 AAZ38326;

(first

entry)

AAZ38326 standard;

cDNA; 546

BP.

ALIGNMENTS

Homo

sapiens

Location/Qualifiers 1..540

HP10390; transmembrane domain; stomach cancer cell; antibody; assay reagent; diagnostic marker; primer; probe; antisense; gagonist; antagonist; ligand; therapeutic; ds.

antisense; gene therapy;

Human transmembrane protein cDNA clone HP10390 coding sequence

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                                                                                                                                                                                                                                                                                                                                                                                                               HP10390 which encodes a 20 kD protein with one putative transmembrane domain in the N-terminus. The cDNA was isolated from a human stomach cancer cell line cDNA library. The protein has no homology with any known protein. The protein may be used to raise specific antibodies, as assay reagents, as diagnostic tissue markers, for the isolation of cognate receptors, ligands and binding proteins, and as biologically active agents. Nucleotides encoding the protein may be used as primers and probes or antisense molecules, and in gene therapy. Cells transformed with these nucleotides may be used to screen for agonists and antagonists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This sequence HP10390 which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 3; Page
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                                         CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
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                    GlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIle
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                                                                                                                                                                                          GluIleAlaGlnValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
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DB; AAY52391.
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                                                                                                                                                                                                                                                                                                                                                                                                         potentially useful therapeutically.
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/product= "Human transmembrane
/note= "No stop codon given in
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03-JUL-1997;
19-MAY-1998;
19-MAY-1998;
17-JUN-1998;
This cDNA clone encodes human secretory peptide-9, or Zsig9, variant (see AAW88474). Zsig9 (see also AAW88469) is overexpressed human brain, liver, lung, oesophageal, stomach, colon, rectal, thyroid and lymphoma tumors. Thus, Zsig can be used as an indicator for cancer. Zsig9 cDNA was discovered in a placenta clone from a full-term pregnancy cDNA library which contained an expressed sequence tag (see AAX06971). The invention provides polynucleotides (see AAX06968-70) encoding Zsig9 polypeptides (see AAX06977) including mature polypeptides, other processed forms, variants and mouse orthologues. The Zsig9 gene, or probes derived from it, can be used to determine if Zsig9 is present on chromosome
                                                                                                                                             Claim
                                                                                                                                                                           New mammalian secretory peptide-9 (Zsig9) - enhancer for placenta, liver and heart, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                        mat_peptide
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        Secretory protein-9; Human Zsig9; chromosome 12q15 region; variant; overexpression; antagonist; antibody; antisense nucleotide; tumour; treatment; receptor; radio-label; fusion; polypeptide toxin; technique; down-regulation; probe; diagnostic; therapeutic; cancer; brain; liver; detection; stomach; lymphoma; alternative splicing; allelic variation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     which overexpress 2sig9. Antisense nucleotides derived from 2sig9 cDNA can also be used to inhibit the growth of tumour cells. 2sig9 proteins can be used to enhance the growth or development of the placenta, heart or liver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12, and if a mutation has occurred. Antibodies raised against zsig9 can be used as diagnostic agents to determine the presence czsig9, and thus the presence of cancer. They can also be labelled with radioisotopes or fused with toxins and used to treat tumours.
                                                                                                                  AAZ08293;
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Best Local Similari
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                                                                                                                                                                                                                                                   The present DNA sequence is a gene encoding the variant of the secretory protein 9, 2sig9 that arises due to alternative splicing, allelic variation or silent mutations that result in amino acid changes. This sequence is mapped to the human chromosome 12q15 region. It is overexpressed in tumours. Antagonists, antibodies and antisense nucleotides to Zsig9 are useful for detecting and treating tumours. The antagonist may be an antibody or receptor to Zsig9 and it may be radiolabelled or fused to a polypeptide toxin. It can be used for down regulating the overexpression of Zsig9. The gene sequence can be used as nucleic acid probes to detect RNA encoding Zsig9. The Zsig9 sequence facilitates improved diagnostic and therapeutic techniques for detecting and treating cancers, especially of the brain, liver, stomach, lymphoma,
                                                                                                                                                                                                                                                                                                                                                                                                        Detecting tumors using antibodies, antagonists nucleotides to secretory protein-9 (2sig9) -
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/product= "Zsig9 secretory protein variant-4"
/note= "Overexpressed in tumours"
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This sequence represents the human cDNA clone HP10390 which encodes a 20 kD protein with one putative transmembrane domain in the N-terminus. The was isolated from a human stomach cancer cell line cDNA library. The protein has no homology with any known protein. The protein may be used to raise specific antibodies, assay reagents, as diagnostic tissue markers, for the isolation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HP10390; transmembrane domain; stomach cancer cell; antibod; assay reagent; diagnostic marker; primer; probe; antisense; agonist; antagonist; ligand; therapeutic; ds.
                                                                                                                                                                                                                                  Human proteins with transmembrane domains, proliferation and differentiation, useful finflammation -
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                                                                                                                                                                                                                                                                                              The invention relates to modulators of a cancer-related genes. Also CC described are: (1) processes for identifying an anti-neoplastic agents CC comprising contacting a cell exhibiting neoplastic activity with a CC compound first identified as a cancer related gene modulator, and CC detecting a decrease in the neoplastic activity. (2) a process for CC determining the cancerous state of a cell by determining an increase in CC the level of expression of at least one gene, where an elevated CC expression relative to a known non-cancerous cell indicates a cancerous cell state or potentially cancerous state. The anti-neoplastic agent is CC useful for treating cancer or for protecting an animal against cancer. CC The immunogenic composition is also useful for treating cancer in an CC lymphocytes specific for the immunogenic composition elicits the production of cytotoxic T CC lymphocytes specific for the immunogenic composition. Preferably, the CC animal is a human. The cancer-linked genes and polypeptides are also useful as targets for cancer therapy or chemotherapy. The present CC sequence represents a cancer-linked genes and polypeptides are also cancer transmembrane profein A
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                                                                                                                                                                                                                        Antibody preparation by inoculation of an animal with a vector expressing a fusion protein of an antigen on the C-terminal side transmembrane domain for use as drugs, diagnostic reagents and
                                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                                                            Kato
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24-AUG-2000; 2000JP-0254407
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DB; ABB09717.
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The specification describes a method of antibody preparation. The method comprises inoculating an animal with a vector expressing a fusion protein having an antigen protein fused to the C-terminal side (extracellular) of a transmembrane domain protein (the

intracellular),

Example;

Page 33-35; 45pp;

Japanese

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                                                                                                                                                                                                                                                                                                                                                             RESULT
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as drugs, vaccines, diagnostic reagents and laboratory reagents. The
present sequence encodes a polypeptide, designated HP10390, which was
used in the course of the invention.
   23-MAY-2001;
                                                                           WO200190154-A2
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                                                                                                                                                                                                                                                                                                                          standard; cDNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           cc polypeptide comprising a portion of an ovarian tumour protein. The csequences of the invention are useful for stimulating an immune response cand for treating ovarian cancer in a patient. An antigen presenting cell that expresses the sequences is useful for treating ovarian cancer by incubating CD4+ and/or CD8+ T cells isolated from a patient. The T cells can then be proliferated and administered to the patient to inhibit the CC can then be proliferated and administered to the patient to inhibit the CC development of cancer. The DNA sequences are useful as probes or primers for nucleic acid hybridisation, to direct expression of a polypeptide in appropriate host cells. Detecting the presence of a cancer in a patient CC involves obtaining a biological sample from the patient, contacting the biological sample with an agent that binds to the protein, detecting the mount of protein that binds to the agent, comparing the amount of protein that binds to the agent, comparing the amount of concer. Sequences ABK09464-ABK09802 represent PCR primers and cDNA concerns and cDNA concerns a patient tumour proteins of the invention.
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13-JUN-2000; 2000US-211457P
21-JUN-2000; 2000US-213673P
03-AUG-2000; 2000US-223288P
01-MAR-2001; 2001US-272790P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated polynucleotide encoding polypeptide comprising ovarian tumour protein, useful for detection, diagnosis and human ovarian cancer -
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                                                       HisArgLysAsnTyrValArgValValGlyArgAsnGlyGluSerSerGluLeuAspLeu
                                                                                                                                AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu
 CATCGCAAGAACTACGTACGTGGGCCGGGAATGGAGAATCCAGTGAACTGGACCTA
                                                                                                                 GATGGCAGCCAGTCAGTGGGAGGTGCCTTATGCCCGCTCAGAGGCCCACCTCACAGAG
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encoding human secreted proteins (AAV01135 to AAX22111 to AAX22134)
CC protein gene sequences are deposited with the ATCC under deposit number CC ATCC 209118. Host cells comprising recombinant vectors containing the CC secreted proteins. The polynucleotide and manno acid sequences are used for the recombinant production of the CC secreted proteins. The polynucleotide and manno acid sequences are useful CC conditions e.g. by protein or gene therapy. Pathological conditions can CC be also diagnosed by determining the amount of the new polynucleotides. Specific uses are described for each of the CC polynucleotides. Specific uses are described for each of the CC polynucleotides. Specific uses are described for each of the CC in, and include developing products for the diagnosis or treatment of cancer, tumours, developmental abnormalities and foetal deficiencies, CC autoimmune diseases, lymphomas, Alzheimer's and cognitive disorders.
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01-JUL-1997;
01-JUL-1997;
12-SEP-1997;
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                                                                                                                                                                                                                                                                                                          New isolated human genes and the secreted polypeptides they encode useful for diagnosis and treatment of e.g. cancers, neurological disorders, immune diseases, immune deficiency diseases or blood
                                                                                                                                                                                                                                                                   Claim 4; Page
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97US-0051381.
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Homo

Human secretory and transmembrane; PRO; breast; prostate; cervical; tumour necro cartilage; ear; proliferation; glucose; adipocyte; A-peptide; factor VIIA; gene

cervical; tumour necrosis factor-alpha; TNF-alpha; roliferation; glucose; free fatty acid; skeletal muide; factor VIIA; gene therapy; ss.

muscle;

mammallan; cancer;

Human cDNA sequence

encoding entry)

for PRO4426 polypeptide.

24-OCT-2001 AAS21330;

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01-DEC-2000;

2000WO-US32678

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CC AAS21244-AAS21518 encode for novel human secretory and transmembrane CC PRO polypeptides. The PRO polypeptides are useful to detect other CC PRO polypeptides, to link bioactive molecules to cells expressing CC PRO polypeptides, to modulate biological activities of cells expressing CC PRO polypeptides, and to detect the presence of mammalian lung, colon, CC breast, prostate, rectal, cervical or liver tumours by comparing PRO CC polypeptide expression in a cell sample to that in a control sample. CC some of the 275 sequences are also useful to stimulate the release of CC tumour necrosis factor-alpha (TNF-alpha) from human blood, the CC proliferation or differentiation of chontrocytes, the proliferation or CC cartilage, the proliferation of inner ear utricular supporting cells or CC of T-lymphocytes, the release of a cytokine from peripheral blood CC monocytes (PBMCs), or the proliferation of endothelial cells. Some of the PRO polypeptides may modulate glucose or free fatty acid uptake by skeletal muscle cells or by adipocytes; or inhibit binding of A-peptide collections involved in binding interactions. The polypucleotides encoding PRO polypeptides can be used to generate probes, antisense RNA/DNA, cc transgenic or knock out animals and can be used in gene therapy.
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01-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 3;
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04-SEP-1998;
13-NOV-1997;
17-DEC-1997;
09-FEB-1998;
13-APR-1998;
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97US-0069957.
98US-0074121.
98US-0081563.
98US-0096116.
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RESULT 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAX97813-X97906 represent extended cDNA's which encode novel human secreted proteins (see AAY36129-Y36222) and which have cytostatic, thrombotic and osteopathic activity. The extended cDNAs can be used to express secreted proteins or parts of them or to obtain antibodies capable of binding to the secreted proteins. They may also be used in diagnostic, forensic, gene therapy and chromosome mapping procedures. Uses also include design of expression vectors and secretion vectors.
                   AAX06970 standard; cDNA; 1069
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                                                                                                                CTGCTGGAGGAGATATGTGACCGGATGAAGGAGTATGGGGGAACAGATTGATCCTTCCACC
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                                                                                                                            cancer. The invention provides polynucleotides (see AAX06968-70) encoding Zsiq9 polypeptides (see AAW88469-77) including mature polypeptides, other processed forms, variants and the mouse orthologues. The Zsiq9 gene, or probes derived from it, can be used to determine if Zsiq9 is present on chromosome 10, and if a mutation has occurred. Antibodies raised against Zsiq9 can be used as diagnostic agents to determine the presence of Zsiq9, and thus the presence of cancer. They can also be labelled with radioisotopes or fused with toxins and used to treat tumours which overspress Zsiq9, antisense nucleotides derived from Zsiq9 cDNA can also be used to inhibit the growth of tumour cells. Zsiqp proteins can be used to enhance the growth or development of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-JUL-1997;
19-MAY-1998;
19-MAY-1998;
17-JUN-1998;
                                                                                                                                                                                                                                                                           This cDNA clone encodes novel mouse secretory peptide-9, or zsigg (see AAW88476), an orthologue of novel human zsigg (see AAW88476) an orthologue of novel human zsigg (see AAW88469) Human zsigg is overexpressed in a number of tumours including brain, liver, lung, oesophageal, stomach, colon, rectal, thyroid and lymphoma tumors, and thus can be used as an indicator for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mat_peptide
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                                                                                                                                                                                                                                                                                                                                                     Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                         New mammalian secretory peptide-9 (2sig9) - enhancer for placenta, liver and heart, and
                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1999-106055/09
P-PSDB; AAW88476.
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03-JUL-1997;
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98US-0085983.
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97US-0051704
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418..903
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US-10-082-502-20 (1-162)

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RESULT 12
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                                                                                                                                                                    Secretory protein-9; mouse Zsig9; ortholog; overexpression; antibody; antisense nucleotide; tumour; treatment; receptor; radio-label; polypeptide toxin; down-regulation; diagnostic; therapeutic; probe; cancer; brain; liver; detection; stomach
                                                                      mat_peptide
       19-MAY-1999;
                       25-NOV-1999.
                                        WO9960405-A1
                                                                                      sig_peptide
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       99WO-US11107
                                                              /*tag= 1
418.903
/*tag= 0
                                                                                     /*tag= a
/product= "Mouse Zsig9
/note= "Overexpressed i
358..417
                                                                                                                     Location/Qualifiers 358..906
                                                        'label≖
                                                                                                                                                                                                                                                              DNA; 1069
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                                                               a
                                                     Mature_Zsig9_protein_variant-4
                                                                                                                                                                                                             Zsig9 secretory protein
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                                                                                                                                                                                              antagonist;
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Best Local Similarity:
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DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present DNA sequence is an ortholog encoding the secretory protein-9, zsig9 derived from mouse. It is overexpressed in tumours. Antagonists, antibodies and antisense nucleotides to Zsig9 are useful for detecting and treating tumours. The antagonist may be an antibody or receptor to Zsig9 and it may be radio-labelled or fused to a polypeptide toxin. It can be used for down regulating the overexpression of Zsig9. The gene sequence can be used as nucleic acid probes to detect RNA encoding Zsig9. The Zsig9 sequence facilitates improved diagnostic and therapeutic techniques for detecting and treating cancers, especially of the brain, liver, stomach, lymphoma etc., at an early stage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Detecting tumors using antibodies, antagonists nucleotides to secretory protein-9 (Zs1g9) -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-MAY-1998;
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 GluLeu 162
                                                                                                                                                    2000-039447/03
DB; AAY15136.
                                   AspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisIleSerHisAsp
                                                                ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys
                                                                                                                     GlnGlyIleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIle
                                                                                                                                                                                                                                       GACAAACTTTGCAGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCACGAT
                                                                                                           CAGGGCATCCGAATTGACTCAGATATCAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
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97.53%
97.88%
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Matches:
Conservative:
Mismatches:
Indels:
Gaps:
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Best Local S. Query Match: DB:
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ABK36007
              õ
                                           US-10-082-502-20 (1-162) x ABK36007
                                                                                                                                                                                                  Score:
                                                                                                                                                                     Alignment
                                                                                                                       Percent Similarity:
                                                                                                                                                                                                                          The present invention relates to the isolation of novel cDNA sequences which encode human secreted proteins. The cDNA sequences have been derived from a variety of human tissues. The invention also provides a method for producing proteins from these polynucleotide sequences. The proteins are useful for identifying compounds that modulate their activity and production. The sequences of the invention are useful for treating diseases such as hyperproliferative disorders ce.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. multiple sclerosis), blood disorders (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis), infectious disorders (e.g. hepatitis), allergic conditions (e.g. asthma), neurodegenerative disorders (e.g. allergic conditions (e.g. neurodegenerative disorders (e.g. hamophilia), and tumours. The polynucleotide sequences of the invention are also useful in gene therapy. ABK35610-ABK36232 represent the cDNA sequences of the invention that encode for novel human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jacobs K, F
                                                                                                       Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Merberg D
Clark HF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Six hundred and twenty three polynucleotides derived from a variety of human tissue sources which encode secreted proteins, useful for treating immune deficiencies and disorders such as autoimmune disorders
                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1;
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infectious disorder; allergic condition; neurodegenerative disorder;
liver fibrosis; coagulation disorder; gene therapy; antimicrobial;
tumour; cancer; hepatotropic; immunosuppressive; antirheumatic; gene
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ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
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Conservative:
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lding V, Wong
ta K, Graham J
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RESULT 14
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13-NOV-1997;
17-DEC-1997;
09-FEB-1998;
13-APR-1998;
                    Example 28; Page 194-195; 307pp;
                                                            Extended cDNAs encoding secreted
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                                                                                                           P-PSDB;
                                                                                                                                                                      Bougueleret L,
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DB; AAY36153.
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                                                                                                                                                                                                                   GENSET
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gene therapy; chromosome mapping; secretion vector; ss.
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97US-0069957.
98US-0074121.
98US-0081563.
98US-0096116.
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                                                                                           Human; mouse; chicken; rat; secreted expressed expressed sequence tag; EST; probe; chemotactic immunomodulatory; haematopoietic; chemokinetic
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                      antiviral; antidiabetic; antiasthmatic; vulnerary; antiparkinsonian;
antiulcer; osteopathic; neuroprotective; nootropic; antipsoriatic;
                                                                  expressed sequence tag; EST; probe; chemotactic; prolifera immunomodulatory; haematopoietic; chemokinetic; analgesic; thrombolytic; antiinflammatory; cytostatic; antibacterial;
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                   osteopathic;
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Cc chemokinetic; proliferative; immunomodulatory; haematopoietic; chemokinetic; proliferative; haemostatic; thrombolytic; antiinflammatory; cc cytostatic; antibacterial; antifungal; antiviral; antidiabetic; cc antiasthmatic; vulnerary; antifungal; antiviral; antidiabetic; cc antiasthmatic; vulnerary; antifungal; antiparatic; cerebroprotective; cc anticonvulsant; and antidepressant. The sESTs can be used for gene ct therapy and in vaccines. The SESTs are useful as probes for the collective; antiparatification and isolation of full-length cDNAs and genomic DNA cc molecules which correspond to the sESTs. Proteins encoded by the sESTs care useful in assays for determining biological activity and raising cc antibodies. They may be useful for treatment of autoimmune disorders (multiple sclerosis, insulin dependent diabetes), allergic conditions cc (asthma), myeloid or lymphoid cell deficiencies, wounds, burns, ulcers, cc osteoporosis, osteoparthritis, central nervous system disorders (haemophilia, thrombosis), inflammatory disorders (conditions of disorders (haemophilia, thrombosis), inflammatory disorders (Crohn's consesse), tumours, bacterial, fungal or viral infections, depression and cc in the exemplification of the present linker variants which are given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA43426 to AAA45925 represent specifically claimed secreted expressed sequence tags (sESTs), isolated from human, mouse, chicken and rat tissue sources. The sESTs can have a range of activities depending on the tissues they were isolated from. The activities include:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Isolated polynucleotides, and encoded proteins, comprising secreted expressed sequence tags (sESTs), useful for treating various disorders such as autoimmune, infectious, and central nervous system disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   vaccine; autoimmune disorder; multiple sclerosis; allergic co
insulin dependent diabetes; asthma; myeloid cell deficiency;
lymphoid cell deficiency; burn; osteoporosis; osteoarthritis;
central nervous system disorder; Alzheimer's disease; stroke;
Sequence
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US-10-082-502-20 (1-162) x AAA43525 (1-592)

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                                                                                                                                                                                    260 AAAAAATTGTATTTTTATTCTGATGCTTACAGACCTTTGAAATTTGCGTGTGAAACTATA 319
                                                                                                                                                                                                                                  200 AAGGAGAACTTTCAAGAGATTCGCTCCTAGGAAAGGAGACAAAATATACCAAGAATTT 259
                                               434 GAGCTC 439
                                                                    161 GluLeu 162
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                                                                                                                                                                                                                                                                                                                                     Web site: http://www.nisc.nih.gov/
Contact: nisc_mgc@nhgrl.nih.gov
Shevchenko,Y., Wetherby.K.D., Beckstrom-Sternberg,S.M.,
Shevchenko,Y., Wetherby.K.D., Beckstrom-Sternberg,S.M.,
Benjamin,B., Blakesley.R.W., Bouffard,G.G., Brinkley.C., Brooks,S.,
Benjamin,B., Blakesley.R.W., Bouffard,G.G., Brinkley.C., Legaspi,R.,
Dietrich.N.L., Guan,X., Gupta,J., Ho,S.-L., Karlins,E., Legaspi,R.,
Lim,M., Maduro,Q.L., Maslello,C., Mastrian,S.D., McCloskey.J.C.,
McDowell,J., Pearson,R., Snyder,B., Stantripop,S., Thomas,P.J.,
Tiongson,E.E., Touchman,J.W., Tsurgeon,C., Vogt,J.L., Walker,M.A.,
Zhang,L.-H. and Green,E.D.
                                                                                                                                                                                                                                              Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAL Plate: 5 Row: p Column: 13
This clone was selected for full length sequencing because it
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA Sequencing by: Nation Sequencing Center (NISC),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@nail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
Submitted (17-NOV-2000) National Institutes of Health, Mammalian Sene Collection (MGC), Cancer Genomics Office, National Cancer Gene Collection (MGC)
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Eukaryota; Metazoa;
Mammalia; Eutheria;
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BC001027.1 GI:12654402
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IMAGE:3344788,
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                                                                                                                                                                                                               the following selection criteria: matched mRNA g1: 6014631. Location/Qualifiers
                                                                      /clone="MGC:1545 IMAGE:3344788"
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Primates;
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Matches:
Conservative:
                            Mismatches:
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US-10-082-502-21 (1-162) x BC001027 21 GluIleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro 40 (1-824)429

AK094445 2378 bp mRNA linear PRI 15-JUL-2002 Homo sapiens cDNA FLJ37126 fis, clone BRACE2022693, weakly similar to Transmembrane protein 4. AK094445.1 GI:21753508

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. Homo sapiens oligo capping; fis (full insert sequence). Homo sapiens cerebellum cDNA to mRNA, clone_lib:BRACE2 clone:BRACE2022693.

Kawakami,B., Sugiyama,A., Takemoto,M., Sugiyama,T., Irie,R., Otsuki,T., Sato,H., Wakamatsu,A., Ishii,S., Yanamoto,J., Isono Kawal-Hio,Y., Saito,K., Nishikawa,T., Kimura,K., Yanamshita,H., Matsuo,K., Nakamura,Y., Sekine,M., Kikuchi,H., Kanda,K., Wagatsuma,M., Murakawa,K., Kanehori,K., Takahashi-Fujii,A., Oshima,A., Suzuki,Y., Sugano,S., Nagahari,K., Masuho,Y., Nagai and Isogai,T Isono, Y.,

Unpublished human cDNA sequencing project

Submitted (04-JUL-2002) Takao Isogai, FLJ Project(HRI Team); 2-6-7 Kazusa-Kamatari, Kisarazu, Chiba 292-0812, Japan (E-mail:genomicsehri.co.) pp. Tel:81-438-52-3975, Fax:81-438-52-3986) NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Biotechnology (RAB); cDNA library construction: Helix Research Institute (HRI) (supported by Japan KRy Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB, HRI, and Biotechnology Center, National Institute of Technology and Evaluation; clone selection for full insert sequencing: HRI and RAB, annotation: HRI and RAB. 2 (bases 1 to 2378)
Isogai,T. and Yamamoto,J.
Direct Submission /tissue_type="cerebellum" /clone_lib="BRACE2" /clone="BRACE2022693" /organism="Homo sapiens" /db_xref="taxon:9606" Location/Qualifiers

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Percent Similarity:
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to: 5.63e-17 Length: 649 to: 5.63e-17 Length: 48 c. Similarity: 100.00% Conservative: 1 cal Similarity: 97.96% Mismatches: 0	NT 175 &	.	Direct Submission L Submitted (14-SEP-1999) Biomolec Inc., 1201 Eastlake Ave. East, S Location/Qualifiers rce 1. 649	O'Hara, P. O'Hara, P. Homo sapiens putative secreted protein Unpublished 2 (bases 1 to 649) Sheppard, P., Jelinek, L., Whitmore, T., Blumberg, H., Lehner, J. &	Cds. AF186113 AF186113.1 GI:6014631 Homo sapiens. Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleost Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 649) Sheppadd, P., Jelinek L., Whitmore, T., Blumberg, H., Jehner, J.	AF186113 AF186113 N Homo sapiens putative secreted protein ZSIG9 (ZSIG9) mRNA, comp	30 uPhePheSerArgGluAlaAspAsnValLysAspLysLeuCysSerLysArgThr 148 	.16Ala-CysGluSerIleValGluGluTyrGluAspGluLeuIleGl 130	115 PAACCAGGGAGAGAGCTGAGCCGGTGTCTCTGCCCCGGCTGAGGATCCTGGGTCACTTCT 98051	2 TCTAGGCCAGCTGGAGCGATATCATAAAACCCTGTCTATAAAATCCCCCACTGCCACCCAA	.15 115	2 CTTGTAACCCGGGCAGTGGAGGAGCAGTGGTTGGAAGATTGGCACTAGTTCATACTGAGT 9		
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REFERENCE AUTHORS VERSION KEYWORDS SOURCE

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Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, G., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., David, R., David, R., David, R., David, R., David, R., Delyado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delyado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Ding, Y., Dinh, H.H., Delaney, K.R., Ding, Y., Dinh, H.H., Delaney, K.P., Ding, Y., Dinh, H.H., Delaney, K.P., Ding, Y., Dinh, H.H., Delaney, K.P., Ding, Y., Dinh, K.J., Delaney, C., Edgar, D., Edwards, C.C., Eshaj, C., Escotto, M., Earner, T., Garza, W., Gill, R., Gollis, T., Ferraguito, D., Flagg, M., Ford, J., Foster, P., Frantz, P., Falls, T., Fearts, K., Hart, M., Garrer, T., Garza, M., Gill, R., Gorrell, J.H., Guevara, W., Garrer, T., Hale, S., Hamilton, K., Harris, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J., Homsi, F., Howard, S., Hamilton, K., Hongis, H., Hongis, H., Hart, M., Havlak, P., Hawes, A., Hernandez, J., Homsi, F., Howard, S., Hamilton, K., Johnson, R., Jolivet, S., Joudah, S., Karlovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L.C., Lewis, L., Li, J., Hulyk, S., Hume, J., Jackson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Kratovic, J., Kureshi, A., Landry, N., Lucler, R., Luna, R., Ma, J., Karlovic, J., Kureshi, A., Landry, N., Lucler, R., Luna, R., Ma, J., Karlovic, J., Kureshi, A., Landry, N., Lucler, R., Luna, R., Ma, J., Karlovic, J., Kureshi, A., Landry, N., Lucler, R., Luna, R., Ma, J., Karlovic, J., Kureshi, A., Landry, N., Lucler, R., Luna, R., Ma, J., Karlovic, J., Kureshi, A., Landry, N., Lucler, R., Luna, R., Ma, J., Karlovic, J., Kureshi, A., Landry, N., Lucler, R., Luna, R., Ma, J., Karlovic, J., Kureshi, A., Landry, N., Lucler, R., Martindale, A., Martinez, E., Massey, E., McLeod, M.P., Meador, M., Morgan, M., Worris, S., Moser, M., Newison, J., Newison, M., Noura, N., Noura, N., Noura, N., Noura, N., Noura, N., Noura, N., No
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Direct Submission

Submitted (13-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Jul 12, 2002 this sequence version replaced gi:18860222.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (08-FEB-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
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Direct Submission
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Web site: http://www.hgsc.bcm.tmc.edu/Contact: hgsc-help@bcm.tmc.edu
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(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 47 contigs. The true order of the pleces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown.

This record will be updated with the finished sequence
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----- Summary Statistics
Sequencing vector: Plasmid;
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Submitted (26-JAN-2002) Lita Annenberg Hazen Genome Sequencing Center, Cold Spring Harbor Laboratory, 1 Bungtown Road, Cold Spring Harbor, NY 11724, USA
On Jan 26, 2002 this sequence version replaced gi:18201765.
This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >-
30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least
                                                                                                                                                                                                                                                                                                                                                                                  McCombie,W.R., de la Bastide,M., Spiegel,L., Preston,R., Kirchoff,K., Kuit,K., Nascimento,L., Zutavern,T., Balija,V., Bell,M., Baker,J., Santos,L., Miller,B., Katzenberger,F., Muller,S., King,L., Yang,C., Palmer,L., O'Shaughnessy,A. and Dedhia,N.

Genomic sequence for Mus musculus, clone RP23-104010, complete
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                                                                                                                                                                                                                                                                                                                                             ATCAGCGGCACCCTCAAGTTTGCGGTGAGTTACCGCTGTGCCGTGAGTAGCTGTTTCTTG
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a mononucleotide (T) repeat in which the exact numb of Ts is unknown. Other subclones in the region show fewer T than that represented in the assembly."

a 48671 c 49663 g 56477 t
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Submitted (15-FEB-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine,
                                                                  Worley, K.C.
Direct Submission
                                                                                                                                                                                                                           Williams,G., Williamson,A., Wleczyk,R., Wooden,S., Worl Wu,C., Wu,Y., Wu,Y.F., Zhou,J., Zorrilla,S., Nelson,D., Weinstock,G. and Gibbs,R.
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                                                                                                                                                               Unpublished
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                                                                                                                                                                                                                                                                                                                           Wang, S., Ward-Moore, S., Warren, R., Washington, C., Watlington, S.,
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Buhay, C., Burch, P., Burkett, C., Burrell, K.L., Byrd, N.C.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
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Homo sapiens chromosome 12 clone RP11-183H16, WORKING DRAFT
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                                                                                                                                                                                                                                                                                              S., Worley, K.,
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cine, One
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 9 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                  47425
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Drafting Center Code: BCM
Contact: hgsc-help@bcm.tmc.edu
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                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
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                                                                                                                                                                      Submitted (24-AUG-2002) Human Genome Sequencing Center, Departed of Molecular and Human Genetics, Baylor College of Medicine, Baylor Plaza, Houston, TX 77030, USA
On Aug 23, 2002 this sequence version replaced g1:22296903.
                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (01-JUL-2000) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
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Direct Submission
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3 (bases 1 to 182350)
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                             Center: Baylor College of Medicine
Center code: BCM
Web_site: http://www.hgsc.bcm.tmc.edu/
Drafting Center Code:
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Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Best Local Similarity:
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171787 TAAGGGGTTGTTGGAGAACCAATTAGAAAGTTAGGCTGATATCCTTGTCCTCCTCTTTGG
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(see http://www.hygsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently
consists of 5 contigs. The true order of the pieces
is not known and their order in this sequence record is
arbitrary. Gaps between the contigs are represented as
runs of N, but the exact sizes of the gaps are unknown.

This record will be updated with the finished sequence
as soon as it is available and the accession number will
be preserved.
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Sequencing vector: M13;
Sequencing vector: M13;
Chemistry: Dye-primer Bodipy: 15% of reads
Chemistry: Dye-terminator Big Dye: 85% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 179279 bases at least Q40
Consensus quality: 180581 bases at least Q30
Consensus quality: 181073 bases at least Q20
Estimated insert size: 174258; sum-of-contigs estimation
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Center clone name: RP11-977G19
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/db_xref="taxon:9606"
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On May 3, 2002
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Submitted (09-MAY-2002) Human Genome Sequencing of Molecular and Human Genetics, Baylor College Baylor Plaza, Houston, TX 77030, USA
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Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 12 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
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Chemistry: Dye-primer Bodipy: 5% of reads
Chemistry: Dye-terminator B1g Dye: 95% of reads
Chemistry: Dye-terminator B1g Dye: 95% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 141522 bases at least Q40
Consensus quality: 147097 bases at least Q20
Consensus quality: 150442 bases at least Q20
Estimated insert size: 150706; sum-of-contigs estimation
Quality coverage: 4x in Q20 bases; sum-of-contigs estimation
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Center project name: HALV
Center clone name: RP11-348M3
...... Summary Statistics
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/db_xref="taxon:9606"
/chromosome="12"
                                    organism="Homo sapiens"
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109481: contig of 41075 bp in
109581: gap of unknown length
155023: contig of 45442 bp in
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                                              TGAGAATGGCATATTCCTTTAAATTGTTTGCCATTTGCAGATCTTTGTGACCATGCCCTG
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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CE 1 (bases I to 155023)

RES Muzhy D.M., Adams.C., Addo-Oduola, B., Ali osman, F.R., Alien, C., Alsbrooks, S.L., Amaratunge, K., Blankenburg, K., Bonnin, D., Barboria, J., Benton, J., Blankenburg, K., Bonnin, D., Barboria, J., Benton, J., Blankenburg, K., Bonnin, D., Daubrooks, J., Chen, S., Chen, S., Chen, C., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Cleveland, C.D., Cox.C., Coyle, M.D., Dathorne, S.R., David, R., Delaney, K.R., Delando, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delando, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Delando, O., Denn, A.L., Ding, Y., Dinh, H.H., Delaney, K.R., Cao, J., Garcia, A., Garner, T., Carzan, N., Gill, R., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, N., Falls, Y., Frantz, P., Garzan, N., Gill, R., Gorrell, J.H., Guevara, M., Gilnaratue, P., Hale, S., Hamilton, K., Harris, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J., Homst, F., Howard, S., Huber, J., Huly, Y., S., Hume, J., Jackson, L.E., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Karlson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Karlson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Karlson, E., Kally, S., Khan, U., King, L., Korvah, J., Lewis, L.C., Lewis, L.C., Lewis, L., J., Liu, W., Loulseged, H., J., J., Liu, W., Loulseged, H., Massey, E., Mawhiney, E., Martin, R., Martindale, A., Martinez, E., Massey, E., Mawhiney, E., Martin, R., Martindale, A., Mart, Morgan, M., Morgan, M., Morgan, M., Morgan, M., Morgan, M., Morgan, M., Stone, H., St
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Yokoyama-Kobayashi,M., Yamaguchi,T., Sekine,S. and Kato,S.
Selection of cDNAs encoding putative type II membrane proteins
the cell surface from a human full-length cDNA bank
Gene 228 (1-2), 161-167 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (16-JUN-1998) Seishi Kato, Researci Rehabilitation Center for the Disabled, Depar Rehabilitation Engineering; 4-1 Namiki, Toko: 359-8555, Japan (E-mail:seishi@rehab.go.jp, Tel:042-995-3100(ex.2568), Fax:042-995-3132)
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US-10-082-502-21 (1-162) x AY032624
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           LeuLeuGluGluValCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThr
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Husargatan 3, Uppsala 75123, Sweden
Location/Qualifiers
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NSAP is a novel saposin-like protein
stimulates neurite outgrowth
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Mammalia; [
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/db_xref="taxon:9606"
/chromosome="12"
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/db_xref="GI:20196199"
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419. 967
/note="NSAP; encodes a
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Homo sapiens
Eukaryota; Metazoa; (
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/db_xref="taxon:9666"
/chromsome="12"
/clone="RP11-764L14"
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Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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Lodes,M.J., Algate,P.A., Fling,S.P.,
                                 type II membrane protein.
Homo sapiens gastric adenocarcinoma
clone_lib:pKA1-meta-1 clone:HP10390.
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/db_xref="taxon:9606"
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Mannion,J., Benson,D.R.
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                                                                                                                                                                                                                                                                                              DEFINITION
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                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No . .
                                                                                                                                                                                                                                                                                                                                                                             883 GAGCTA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              643
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GluLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                             AspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisArgSerHisAsp 160
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                                                                                                                                                                                                                                                                                                                                                                                                                                           GACAAACTTTGCAGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCACGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGGCATCCGAATTGACTCAGATATCAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACCGCAAGAACTACGTACGCGTCGTGAGCCGGAATGGAGAATCCAGTGAACTAGACTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 158198)

Mizny,D.M., Adams,C., Adio-Oduola,B., Ali-osman,F.R., Allen,C., Alsbrooks,S.L., Amaratunge,H.C., Are,J.R., Banks,T., Barbaria,J., Benton,J., Bimage,K., Blankenburg,K., Bonnin,D., Bouck,J., Bowle,S., Brieva,M., Brown,E., Brown,M., Bryant,N.P., Buhay,C., Burcch,P., Burkett,C., Burrell,K.L., Byrd,N.C., Carron,T.F., Chacko,J., Chavez,D., Chen,G., Chen,R., Chen,Z., Chowdhry,I., Christopoulos,C., Cleveland,C.D., Cox,C., Coyle,M.D., Dathorne,S.R., David,R., Davila,M.L., Davis,C., Coyle,M.D., Dathorne,S.R., David,R., Davila,M.L., Davis,C.,
                                                                                                                                                                                                                         SEQUENCE, 5 unordered pieces.
ACO12013
ACO12013.18 GI:14717292
HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_ACTIVEFIN
                                                                                                                                                                                                                                                                         AC012013
158198 bp DNA linear HTG 17-JUL-2001
Homo sapiens chromosome 12 clone RP11-764L14, WORKING DRAFT
SEQUENCE, 5 unordered pieces.
                                                                                                                                                                                             Homo sapiens
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KNYVRVVSRNGESSELDLQGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK
DKLCSKRTDLCDHALHRSHDELF
3 250 c 315 g 204 t
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Matches:
Conservative:
Mismatches:
Indels:
Gaps:
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162
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COMMENT

as soon as it is available and be preserved.

the accession number

108230 108330

108229: contig of 108229 bp in length 108329: gap of unknown length 150246: contig of 41917 bp in length

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TITLE
JOURNAL
REFERENCE
AUTHORS
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JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dugan-Rocha, S., Durbin, K.J., Earnhart, C., Edgar, D., Edwards, C.C.,
Elhaj, C., Escotto, M., Falls, T., FerrBguto, D., Flagg, N., Ford, J.,
Foster, P., Frantz, P., Gabisi, A., Gao, J., García, A., Garner, T.,
Garza, N., Gill, R., Gorreli, J.H., Guevara, W., Gunaratne, P., Hale, S.,
Hamilton, K., Harris, C., Harris, K., Hart, M., Havlak, P., Hawes, A.,
Hernandez, J., Hernandez, O., Hodgson, A., Hogues, M., Holloway, C.,
Hollins, B., Homsi, F., Howard, S., Huber, J., Hullyk, S., Hume, J.,
Jackson, L. E., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S.,
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Lewis, L., Li, J., Li, Lichtarge, O., Lieu, C., Liu, J., Liu, W.,
Loulseged, H., Lozado, R.J., Lu, X., Lucier, A., Lucier, R., Luna, R.,
Martinez, E., Massey, E., Mawhiney, E., McLeod, M.P., Meador, M.,
Morgan, M., Morris, S., Moser, M., Neal, D., Newtson, J., Newtson, N.,
Nguyen, A., Nguyen, N., Nickerson, E., Nwokenkwo, S.,
Oguh, M., Okwuonu, G., Oragunye, N., Ovledo, R., Pace, A., Payton, B.,
Petery, J., Perez, L., Peters, L., Pickens, R., Primus, E., Pu, L.L.,
Quiles, M., Savery, G., Scherer, S., Scott, G., Shen, H., Shooshtari, N.,
Ruiz, S., Savery, G., Svatek, A., Tabor, P., Tamerisa, A., Tansey, J., Taylor, C., Taylor, T., Telfrod, B., Thomas, N.,
Thomas, S., Walliams, G., Williamson, A., Washington, C.,
Watlington, S., Walliams, G., Williamson, A., Washington, C.,
Watlington, S., Walliams, G., Williamson, A., Washington, C.,
Wallias, G., Shen, R., Wooden, S.,
Direct Submission
Submitted (19-OCT-1999) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Jul 13, 2001 this sequence version replaced gi:14547727.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 (bases 1 to 158198)
Worley, K.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Denn, A.L., Ding, Y., Dinh, H.H., Dugan-Rocha, S., Durbin, K.J., E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
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                                                                                                                                                                                                                                                                                                              Chemistry: Dye-terminator Big Dye: 100% of reads Assembly program: Phrap; version 0.990329
Consensus quality: 161278 bases at least Q40
Consensus quality: 170806 bases at least Q30
Consensus quality: 174843 bases at least Q20
Estimated insert size: 168803; sum-of-contigs estimation
Estimated insert size: 162388; agarose-fp estimation
Quality coverage: 5x in Q20 bases; agarose-fp estimation
Quality coverage: 5.8x in Q20 bases; sum-of-contigs estim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center project name: HMKZ
Center clone name: RP11-764L14
----- Summary Statistics
Sequencing vector: M13; L08821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Project Information
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VERSION
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Best Local Similarity:
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                                                                 US-10-082-502-21 (1-162) x BC008261
                                                                                                                                                              Query
                                                                                                                                                                                                                                                                   Score:
                                                                                                                                                                                                                                                                                                  Pred. No.:
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   ب
ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
                                                                                                                                                                                                                                                                                                                                 Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 5 Row: b Collumn: 23 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 9903606.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (22-MAY-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Web site: http://www.hgsc.bcm.tmc.edu/cdna/Contact: ang@bcm.tmc.edu
Guntaratne, P.H., García, A.M., Lu, X., Hulyi
Yoon, V.S., Kowis, C.R., Lawrence, S., Mart:
Richards, S., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tissue Procurement: Lothar Hennighausen Ph.D., Chu-Xia De cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Baylor College of Medicine Human Genom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
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Eukaryota; Metazoa;
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BC008261.1 GI:14198400
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Mus musculus, transmembrane protei
IMAGE: 2650612, mRNA, complete cds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalia; Eutheria;
1 (bases 1 to 798)
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                                                                                                                               1.93e-77
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/db_xref="GI:6014636"
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Command line parameters:

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-O-/cgn2_1/USPTO_spool/US10082502/runat_24032003_135059_6547/app_query.fasta_1.1308
-DB-GenEmbl -QPMT-fastap -SUFFIX-rge -MINMATCH-0.1 -LOOPCL-0 -LOOPEXT-0
-UNITS-blts -STARF-1 -END--1 -MATRIX-blosum62 -TRANS-human40.cd1 -LIST-45
-DOCALIGN-200 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALIGN-15 -MODE-LOCAL
-OUTFMT-pto -NORM-ext -HEAPSIZE-500 -MINLEN-0 -MAXLEN-200000000
-USER-US10082502_8CGN_1_1_4758_8runat_2403203_135059_6547 -NCPU-6 -ICPU-3
-NO_XLPXY -NO_MMAP -LARGEQUERY -NEG_SCORES-0 -WAIT -LONGLOG -DEV_TIMEOUT-120
-WARN_TIMEOUT-30 -THREADS-1 -XGAPOP-10 -XGAPEXT-0.5 -FGAPOP-6 -FGAPEXT-7
-YGAPEXT-0.5 -DELOP-6 -DELEXT-7
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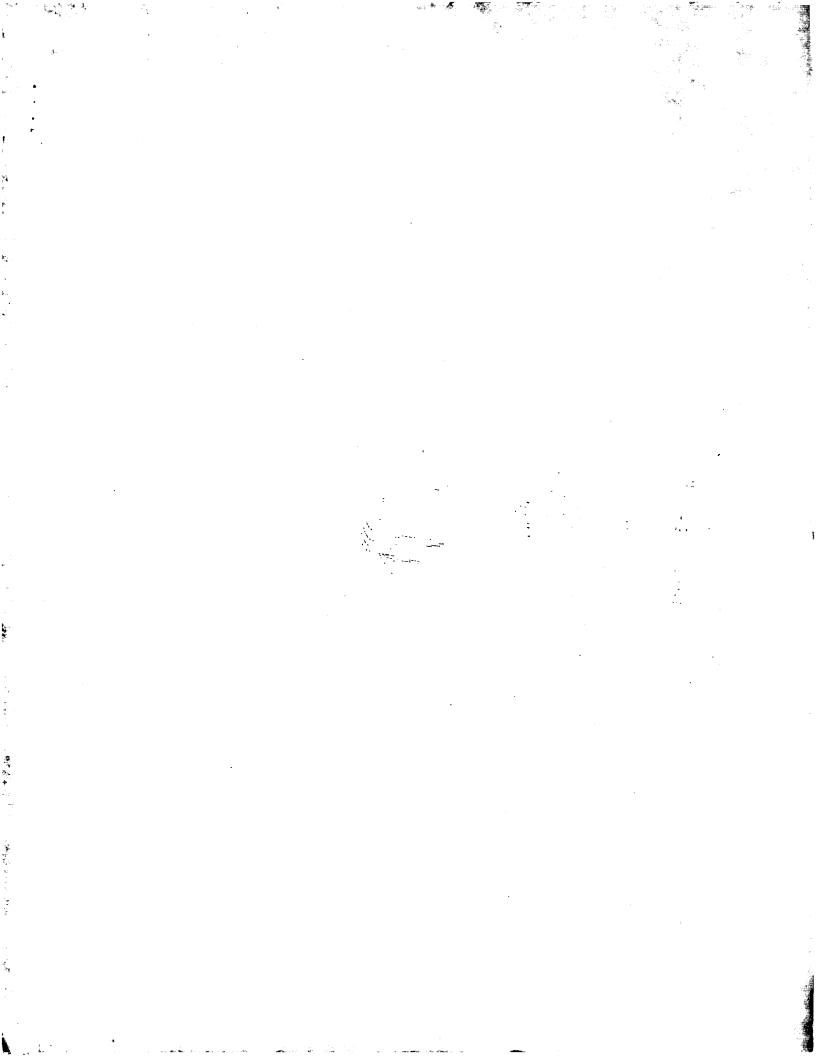
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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thrombolytic; antiinflammatory; cytostatic; antibacterial; antifunga
antiviral; antidiabetic; antibasthmatic; vulnerary; antiparkinsonian;
antivilicer; osteopathic; neuroprotective; nootropic; antiparkinsoriatic;
cerebroprotective; anticonvulsant; antidepressant; gene therapy;
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                                                                               immunomodulatory; haematopoietic; chemokinetic;
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                                                                                                                                                                                                                                                                                                                                                                  GATGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                        AspGluLeu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCATCGCAAGAACTACGTACGTGTAGTGGGCCCGGAATGGAGATCCAGTGAACTGGACCT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAAACTAGAATG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGBTTTGCGTGTGGGAACA
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                                                                                                mouse; chicken; rat; secreted expressed sequence tag; sEST;
sed sequence tag; EST; probe; chemotactic; proliferative;
                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                        162
                                                                                                                                                            expressed sequence tag SEQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4.49e-85
781.00
96.36%
94.55%
92.21%
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                                                                                                                                                                                                                                                                                     CDNA;
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                                                                                                                                                                                                                                                                                     ВP
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Matches:
Conservative:
Mismatches:
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                                                                                                                                                              NO:100
                                                                               analgesic;
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156
                                                            antifungal;
                                                                                 haemostatic;
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ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp |||||||||||| |CGAAGGAGCCAANATCTACACTGTGGANCTTGCAGGGCTCTGGTGGATGAATTAGAGTGG

GluIleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro

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Percent Similarity:
Best Local Similarity:
                                                                                                                     Alignment
Pred. No.:
US-10-082-502-21 (1-162)
                                                                                                                                                                       Query
                                                                                                       Score:
                                                                                                                                                                                                Ct tissue sources. The SETTS can have a range of activities depending on the tissues they were isolated from. The activities include: chemotactic; proliferative; immunomodulatory; haematopoietic; chemotactic; antibacterial; antifungal; antiviral; antifufilammatory; cc cytostatic; antibacterial; antifungal; antiviral; antidiabetic; cc antiasthmatic; vulnerary; antiulcer; osteopathic; neuroprotective; cc anticonvulsant; and antidepressant. The SETTS can be used for gene cc therapy and in vaccines. The SETTS are useful as probes for the cc identification and isolation of full-length cDNAs and genomic DNA cc molecules which correspond to the SETTS. Proteins encoded by the SETTS are useful as probes for the cc useful in assays for determining biological activity and raising cantibodies. They may be useful for treatment of autoimmune disorders (multiple sclerosis, insulin dependent diabetes), allergic conditions (stepporosis, osteopathritis, central nervous system disorders (costeoporosis, osteopathritis, central nervous system disorders (disorders (haemophilia, thrombosis), inflammatory disorders (condition so disease), tumours, bacterial, fungal or viral infections, depression and cc in the exemplification of the present linker variants which are given
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence tags (sESTs)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Isolated polynucleotides, and encoded proteins, comprising secreted expressed sequence tags (sESTs), useful for treating various disorde such as autoimmune, infectious, and central nervous system disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Parkinson's disease; Huntington's disease; coagulation disorder; haemophilia; thrombosis; inflammatory disorder; Crohn's disease; tumour; infection; depression; psoriasis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vaccine; autoimmune disorder; multiple sclerosis; allergic condition; insulin dependent diabetes; asthma; myeloid cell deficiency; ulcer; lymphoid cell deficiency; burn; osteoporosis; osteoarthritis; central nervous system disorder; Alzheimer's disease; stroke; central nervous system disorder; Alzheimer's disease; stroke;
                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA43426 to AAA45925 represent specifically claimed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jacobs K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GEMY ) GENETICS INST INC.
                                                 Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 228-229; 803pp; English.
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                                                                                                                                                                       BP;
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                                 3.77e-83
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95.09%
90.14%
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(1-592)
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Conservative:
                                                 Mismatches:
Indels:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mouse, chicken
                                 592
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Percent Similarity:
Best Local Similarity:
Query Match:
DB:
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ABK36007
US-10-082-502-21 (1-162) x ABK36007
                                                                                                                            Alignment
                                                                                                                                                                                                  The present invention relates to the isolation of novel cDNA sequences CC which encode human secreted proteins. The cDNA sequences have been derived from a variety of human tissues. The invention also provides a method for producing proteins from these polynucleotide sequences. The proteins are useful for identifying compounds that modulate their activity and production. The sequences of the invention are useful for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. multiple sclerosis), blood disorders (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis), infectious disorders (e.g. hepatitis), allergic conditions (e.g. asthma), neurodegenerative disorders (e.g. Alzheimer's disease), liver fibrosis, coagulation disorders (e.g. Alzheimer's disease), neurodegenerative disorders (e.g. Calzheimer's disease), liver fibrosis, coagulation disorders (e.g. cancerton compilial), and tumours. The polynucleotide sequences of the invention are also useful in gene therapy. ABK35610-ABK36232 represent to compile the compile of the invention that encode for novel human cancerton created contents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jacobs K,
Merberg D,
Clark HF,
                                                                                                                                                                                            the cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Six hundred and twenty three polynucleotides derived from a variety of human tissue sources which encode secreted proteins, useful for treating immune deficiencies and disorders such as autoimmune disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-APR-2000; 2000US-195605P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human secreted protein; hyperproliferative disorder; autoimmune disorder; immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; allergic condition; neurodegenerative disorder; liver fibrosis; coagulation disorder; gene therapy; antimicrobial;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1;
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                                                                                                                                                                                            proteins.
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Fechtel
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Agostino MJ, Bowman MR, Spaulding
Howes SH, Resnick RJ, Gulukota K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INC.
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(1-657)
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Matches:
Conservative:
Mismatches:
Indels:
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lding V, Wong o
ta K, Graham J
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i JR;
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ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp

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RESULT 14
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13-NOV-1997;
17-DEC-1997;
09-FEB-1998;
13-APR-1998;
10-AUG-1998;
       Example 28; Page 194-195;
                         Extended cDNAs encoding secreted
                                           WPI; 1999-347472/29.
P-PSDB; AAY36153.
                                                                      Bougueleret L,
                                                                                                                                                                                                               WO9925825-A2
                                                                                                                                                                                                                                  Homo
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                                                                                                                                                                                                                                                            Secreted
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                                                                                        (GEST )
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                                                                                                                                                                                                                                                                                                                                                                        GAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                             GACAAACTTTGCAGTAAGCGAACAGATCTTTGTGACCATGCCCTGCACATATCGCATGAT
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                                                                                         GENSET
                                                                                                                                                                                                                                                  gene therapy;
                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                           97US-0069957.
98US-0074121.
98US-0081563.
98US-0096116.
                                                                                                                                                980S-0099273
970S-0066677
                                                                                                                                                                                                                                                                             protein encoding cDNA
                                                                                                                                                                           98WO-IB01862
                                                                      Duclert
                                                                                                                                                                                                                                                            human; cytostatic;
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      307pp; English
                                                                                                                                                                                                                                                    chromosome
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                                                                       Milne Edwards
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Percent Similarity:
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Query Match:
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RESULT 12
AAX97884
ID AAX97
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                                                                             Secreted protein; human; cytostatic; thrombotic; osteopathic; forensic; diagnostic; gene therapy; chromosome mapping; secretion vector; ss.
                                                                                                                                                                                     1083
                                                                                                       Human secreted
                                                                                                                                                     AAX97884 standard;
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 04-SEP-1998;
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                 13-NOV-1998;
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                 98WO-IB01862
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 98US-0099273
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                                                                                                       CDNA
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Matches:
Conservative:
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17-DEC-1997;
09-FEB-1998;
13-APR-1998;
10-AUG-1998;
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97US-0069957.
98US-0074121.
98US-0081563.
98US-0096116.
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US-10-082-502-21 (1-162) x AAX97884
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                                                                      ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
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                     AspLysLeuCysSerLysArgThrAspLeuCysAspH1sAlaLeuH1sArgSerH1sAsp
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   GACAAACTTTGCAGTAAGCGAACAGATCTTTGTGACCATGCCCTGCACATATCGCATGAT
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                                        Human cDNA sequence encoding for PRO4426 polypeptide.
                                                                                                                                                                                   1053
                                                                                                                            AAS21330 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polynucleotides, based on which tissues they are most highly expressed in, and include developing products for the diagnosis or treatment of cancer, tumours, developmental abnormalities and foetal deficiencies,
  breast;
           Human secretory and
                                                                      24-OCT-2001
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98.77%
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              transmembrane; PRO; mammalian;
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factor-alpha; TNF-alpha;
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cartilage; ear; proliferation; glucose; free fatty acid; skeletal muscle; adipocyte; A-peptide; factor VIIA; gene therapy; ss.
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WO200140466-A2

01-DEC-2000; 07-JUN-2001 2000WO-US32678

99WO-US28551 99WO-US28301

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(GETH) GENENTECH INC

Gerritsen ME, Baker KP, Stewart TA, Beresini M, ME, Goddard Deforge L, Desnoyers L, A, Godowski PJ, Gurney, Tumas D, Watanabe CK, W Wood WI, Filvaroff E, L, Sherwood S; 22 Σ

P-PSDB; WPI; 2001-408281/43. DB; AAU12258.

Isolated, secretory and transmembrane PRO polypeptide used to detect other PRO polypeptides, link bloactive molecules to cells expressing PRO polypeptides, and detect the presence of mammalian tumours e.g. lung, breast, prostate, cervical -

Claim 3; Fig 173; 813pp; English.

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AAS21244-AAS21518 encode for novel human secretory and transmembrane CC PRO polypeptides. The PRO polypeptides are useful to detect other PRO polypeptides, to link bioactive molecules to cells expressing PRO polypeptides, to modulate biological activities of cells expressing PRO polypeptides, and to detect the presence of mammalian lung, colon, CC breast, prostate, rectal, cervical or liver tumours by comparing PRO polypeptide expression in a cell sample to that in a control sample. CC come of the 275 sequences are also useful to stimulate the release of CC tumour necrosis factor-alpha (TNF-alpha) from human blood, the CC proliferation or differentiation of chondrocytes, the proliferation or cartilage, the proliferation of inner ear utricular supporting cells or CC cartilage, the proliferation of inner ear utricular supporting cells or CC Tymphocytes, the release of a cytokine from peripheral blood monocytes (PBMCs), or the proliferation of endothelial cells. Some of the PRO polypeptides may modulate glucose or free fatty acid uptake by Skeletal muscle cells or by adipocytes; or inhibit binding of Apeptide to factor VIIA. The PRO polypeptides can be used in assays to identify molecules involved in binding interactions. The polynucleotides encoding

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Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                and for treating ovarian cancer in a patient. An antigen presenting cell that expresses the sequences is useful for treating ovarian cancer by incubating CD4+ and/or CD8+ T cells isolated from a patient. The T cells can then be proliferated and administered to the patient to inhibit the development of cancer. The DNA sequences are useful as probes or primers for nucleic acid hybridisation, to direct expression of a polypeptide in appropriate host cells. Detecting the presence of a cancer in a patient involves obtaining a biological sample from the patient, contacting the biological sample with an agent that binds to the protein, detecting the amount of protein that binds to the agent, comparing the amount of cancer. Sequences ABK09464-ABK09802 represent PCR primers and cDNA molecules encoding ovarian tumour proteins of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated polynucleotide ovarian tumour protein, usef human ovarian cancer -
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13-JUN-2000; 2000US-213673P.
21-JUN-2000; 2000US-213673P.
03-AUG-2000; 2000US-223288P.
01-MAR-2001; 2001US-272790P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polypeptide comprising a portion of an ovarian tumour sequences of the invention are useful for stimulating
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CATCGCAAGAACTACGT
                                                  GluIleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
                                                                                                                                                                                                                      ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
              H1sArgLysAsnTyrValArgValValSerArgAsnGlyGluSerSerGluLeuAspLeu
                                                                                                                AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu
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      RESULT 10
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01-JUL-1997;
01-JUL-1997;
The invention relates to nucleic acid sequences (AAX22111 to AAX22134) encoding human secreted proteins (AAV01135 to AAV01158). The secreted protein gene sequences are deposited with the ATCC under deposit number ATCC 209118. Host cells comprising recombinant vectors containing the nucleic acid sequences are used for the recombinant production of the secreted proteins. The polynucleotide and amino acid sequences are useful for are useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. Pathological conditions can be also diagnosed by determining the amount of the new polypeptides in a sample or by determining the presence of mutations in the new polynucleotides. Specific uses are described for each of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; secreted protein; gene therapy; protein therapy; tissue; cance; tumour; neurodegenerative disorder; leukaemia; autoimmune disease; AII developmental abnormality; foetal deficiency; Alzheimer's disease; cognitive disorder; schizophrenia; immunological disorder; mood disorder; immune deficiency disease; respiratory disorder; arthritis; skeletal; haematopoietic disorder; neural; osteoporosis; metabolic disorders; cardiovascular; endocrine; gastrointestinal; asthma; diagnosis; ds.
                                                                                                                                                                                                                            New isolated human genes and the secreted polypeptides they encode useful for diagnosis and treatment of e.g. cancers, neurological disorders, immune diseases, immune deficiency diseases or blood
                                                                                                                                                                                   Claim
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P-PSDB; AAY01136, AA
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                                          Antibody preparation by inoculation of an animal with a vector expressing a fusion protein of an antigen on the C-terminal side transmembrane domain for use as drugs, diagnostic reagents and
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             Example;
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24-AUG-2000;
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DB; ABB09717.
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             Page 33-35;
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                                  gene
                                                                         Human ovarian tumour protein encoding cDNA #305
                                                                                                                              ABK09772;
                                                 Human;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             which encodes a 20 kD protein with one putative transmembrane domain in the N-terminus. The cDNA was isolated from a human stomach cancer cell line cDNA library. The protein has no homology with any known protein. The protein may be used to raise specific antibodies, as assay reagents, as diagnostic tissue markers, for the isolation of cognate receptors, ligands and binding proteins, and as biologically active agents. Nucleotides encoding the protein may be used as primers and probes or antisense molecules, and in gene therapy. Cells transformed with these nucleotides may be used to screen for agonists and antagonists which are potentially useful therapeutically.
        Expressed sequence tag; EST; human; cancer; anti-neoplastic; cytotoxic T lymphocyte; chemotherapy; cytostatic; chromosome 12; transmembrane protein 4; gene; ss.
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CGGAGGAGCCAGGATCTCCACTGTGGAGCATGCAGGGCTCTGGTGGATGAACTAGAATGG GluIleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro US-10-082-502-21 (1-162) x ABK52765

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                                                                                                                                              The invention relates to modulators of a cancer-related genes. Also composited are: (1) processes for identifying an anti-neoplastic agents comprising contacting a cell exhibiting neoplastic activity with a compound first identified as a cancer related gene modulator, and compound first identified as a cancer related gene modulator, and contecting a decrease in the neoplastic activity. (2) a process for contecting a decrease in the neoplastic activity. (2) a process for contecting a decrease in the neoplastic activity. (2) a process for content in the cancerous state of a cell by determining an increase in the level of expression of at least one gene, where an elevated content is content in the level of expression relative to a known non-cancerous cell indicates a cancerous state or potentially cancerous state. The anti-neoplastic agent is cuseful for treating cancer in an an animal against cancer. CC useful for treating cancer in an animal against cancer in animal, where the composition elicits the production of cytotoxic T CC lymphocytes specific for the immunogenic composition. Preferably, the CC animal is a human. The cancer linked genes and polypeptides are also useful as targets for cancer therapy or chemotherapy. The present CC useful as targets for cancer therapy or chemotherapy. The present CC which encodes transmembrane protein 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                expression compounds
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                                                                                                                         Sequence 814
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                                                                                                                                                                                                                                                         protein-9, Zsigy that arises due to alternative splicing, alielic variation or silent mutations that result in amino acid changes. This sequence is mapped to the human chromosome 12q15 region. It is overexpressed in tumours. Antagonists, antibodies and antisense nucleotides to Zsigy are useful for detecting and treating tumours. The antagonist may be an antibody or receptor to Zsigy and it may be radiolabelled or fused to a polypeptide toxin. It can be used for down regulating the overexpression of Zsigy. The gene sequence can be used as nucleic acid probes to detect RNA encoding Zsigy. The Zsigy sequence facilitates improved diagnostic and therapeutic techniques for detecting and treating cancers, especially of the brain, liver, stomach, lymphoma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      overexpression; antagonist; antibody; antisense nucleotide; tumour; treatment; receptor; radio-label; fusion; polypeptide toxin; technique down-regulation; probe; diagnostic; therapeutic; cancer; brain; liver; detection; stomach; lymphoma; alternative splicing; allelic variation; silent mutation; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Detecting tumors using antibodies, antagonists nucleotides to secretory protein-9 (Zsig9) -
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19-MAY-1998;
17-JUN-1998;
This cDNA clone encodes human secretory peptide-9, or Zsig9, wariant (see AAW88474). Zsig9 (see also AAW88469) is overexproportion brain, liver, lungos, scopphageal, stomach, colon, rectal, thyroid and lymphoma tumors. Thus, Zsig can be used as an indicator for cancer. Zsig9 cDNA was discovered in a placenta clone from a full-term pregnancy cDNA library which contained a
                                                                                                                                                                                                                                                                                                                                                                                                            CDS
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                                                                                                        New mammalian secretory peptide-9 (Zsig9) -
enhancer for placenta, liver and heart, and
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03-JUL-1997;
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                                                                                                   AAZ08293 standard;
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Secretory protein-9; Human Zsig9; chromosome 12q15 region; variant;

Human Zsig9 gene encoding secretory protein variant-4.

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assay reagent; diagnostic marker; primer;
agonist; antagonist; ligand; therapeutic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present DNA sequence is an ortholog encoding the secretory protein-9, 2sig9 derived from mouse. It is overexpressed in tumours. Antagonists, antibodies and antisense nucleotides to Zsig9 are useful for detecting and treating tumours. The antagonist may be an antibody or receptor to Zsig9 and it may be radio-labelled or fused to a polypeptide toxin. It can be used for down regulating the overexpression of Zsig9. The gene sequence can be used as nucleic acid probes to detect RNA encoding Zsig9. The zsig9 sequence facilitates improved diagnostic and therapeutic techniques for detecting and treating cancers, especially of the brain, liver, stomach, lymphoma etc., at an early stage.
                    HP10390; transmembrane domain; stomach cancer cell; antibody;
                                              Human transmembrane
                                                                                                                   AA238326 standard;
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No.:
                                                                                                                                                                                                                                                                                                                                                      This sequence represents the coding sequence of human cDNA clone HR10390 which encodes a 20 KD protein with one putative transmembrane domain in the N-terminus. The cDNA was isolated from a human stomach cancer cell line cDNA library. The protein has no homology with any known protein. The protein may be used to raise specific antibodies, as assay reagents, as diagnostic tissue markers, for the isolation of cognate receptors, ligands and binding proteins, and as biologically active agents. Nucleotides encoding the protein may be used as primers and probes or antisense molecules, and in gene therapy. Cells transformed with these nucleotides may be used to screen for agonists and antagonists which are potentially useful therapeutically.
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                                                                                                                                                                 ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
           LeuLeuGluGluValCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThr
                                                             AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu
                                                                                                    GAAATTGCCCCAGGTGGACCCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCA
                                                                                                               GluIleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
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)B; AAY52391.
CTGCTGGAGGAGATATGTGACCGGATGAAGGAGTATGGGGGAACAGATTGATCCTTCCACC
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HisargLysasnTyrValargValValSerargAsnGlyGluSerSerGluLeuAspLeu

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19-MAY-1998;
19-MAY-1998;
17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                      cancer. The invention provides polynucleotides (see AAW88469-70) encoding Zsig9 polypeptides (see AAW88469-77) including mature polypeptides, other processed forms, variants and the mouse orthologues. The Zsig9 gene, or probes derived from it, can be used to determine if Zsig9 is present on chromosome 10, and if a mutation has occurred. Antibodies raised against Zsig9 can be used as diagnostic agents to determine the presence of Zsig9, and thus the presence of cancer. They can also be labelled with radioisotopes or fused with toxins and used to treat tumours which overappress Zsig9. Antisense nucleotides derived from Zsig9 which overappress Zsig9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This cDNA clone encodes novel mouse secretory peptide-9, or Zsig9 (see AAW88476), an orthologue of novel human Zsig9 (see AAW88469). Human Zsig9 is overexpressed in a number of tumours including brain, liver, lung, oesophageal, stomach, colon, rectal, thyroid and lymphoma tumors, and thus can be used as an indicator for
                                                                                                                                                                                                                                                                                                           cDNA can also be used to inhibit the growth of tumour cells. Zsig9 proteins can be used to enhance the growth or development of the placenta, heart or liver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 2; Page 75-77; 85pp; English.
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                                                               GluIleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
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GATGGCAGCCAGTCAGTTGTGGAGGTACCTTATGCCCGCTCAGAGGCCCACCTCACAGAG
            AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu
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                                        Detecting tumors using antibodies, antagonists nucleotides to secretory protein-9 (Zsig9) -
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radio-label; polypeptide toxin; down-regulation; diagnostic;
therapeutic; probe; cancer; brain; liver; detection; stomach
Disclosure; Page 37-38; 45pp; English.
                                                                                                               WPI; 2000-039447/03
P-PSDB; AAY15136.
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-MODEL-frame+_p2n.model -DEV=xlp
-Q-/cgn2_1/USPTO_spool/US10082502/runat_24032003_135058_6538/app_query.fasta_1.1308
-DB-N_Geneseq_101002 -QFMT-fastap -SUFFIX-rng -MINMATCH-0.1 -LOOPCL-0
-LOOPEXT-0 -UNITS-bits -START=1 -END--1 -MATRIX-blosum62 -TRANS-human40.cd1
-LIST-45 -DOCALIGN-200 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALIGN-15
-MODE-LOCAL -OOTFMT-pto -NORM-ext -HBAPSIZE-500 -MINLEN-0 -MAXLEN-200000000
-USER-US10082502_eGCN_1_1_741_erunat_24032003_135058_6538 -NCPU-6 -ICPU-3
-NO_XLPXY -NO_MMAP -LARGEQUERY -NEG_SCORES-0 -WAIT -LONGLOG -DEV_TIMEOUT-120
-WARN_TIMEOUT-30 -THREADS-1 -XGAPOF-10 -XGAPEXT-0.5 -FGAPOP-6 -FGAPEXT-7
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Maximum Match 100%
Listing first 45 summaries
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Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-139-491-38
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APPLICATION NUMBER: US/08/455,525
FILING DATE: 31-MAY-1995
APPLICATION NUMBER: 08/297,494
FILING DATE:
APPLICATION NUMBER: US 07/688,356
FILING DATE: 04-APR-1991
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6015677and, Greta E.
REGISTRATION NUMBER: 27866/30822
REFERENCE/DOCKET NUMBER: 27866/30822
REFERENCE/COCKET NUMBER: 27866/30822
REFERENCE/CAPPAGE
TELEPAX: (312) 346-5750
TELEPAX: (312) 386-5750
TELEPAX: 25-3856
INFORMATION FOR SEQ ID NO: 38:
GEOIFER CAPACTER CETTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: 14--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 4131 base pair
841 CTGCAACAGGAGACCCAGGCATCCCGCTGCTGCTGCTGCTGGTATCCGAGGACAAT---
                                                                                                                                                   745
                                                                                                                                                                                                                         685
                                                                                                                                                                                                                                                                                                                                                                     574 GTGCACTGTGGT-----CAGCTGAGTGACAATGAGGAGTGGAGCCTGCAAGCTGTG 624
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CLASSIFICATION:
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                                                                                                       MetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgVal 88
                                                                                                                                                                                                                    GTGGCCCCGGAAGCGACCCAGAATCCTCCGGAGGAGGCAGCGGGAGACCAGAAGGGTGGG 744
                                                                                                                                                                                                                                                      IleAsnProAspGlySerGlnSerValValGlu----- 48
                                                                                                                                                                                                                                                                                                                                                                                          LeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAlaArgVal 25
                                                                                                                                                                                 ValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluValCysAspArg 68
                                                                                                                                                                                                                                                                                                                                GTCGCATACACAAACCAAGACCGAAAGATCCTGCAGCTTTGCGGGGAGCTCTACGAC--- 801
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76.00
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                                                                      -----CTGGATGCATCTTCCCTGCAGCTCAAAGTCCTCCAATAT 840
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Matches:
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1066 GTGCAGGCCATGCTCTGTGTCCCTGTCATCAGCCGGGCCACTGACCAGGTC 1116
                                                                           1006 CAGCTGAAAGATCTCACCTCCGAGGATATGCAACAGCTGCAAAGCATGTTGGGCTGTGAG 1065
                      146 LysArgThrAspLeuCysAspHisAlaLeuHisArgSerHisAspGluLeu 162 ::: |||::: |||:::: |||
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                                                                                                                                                                                           129 IleGluPhe-----PheSerArgGluAlaAspAsnValLysAspLysLeu----- 143
                                                                                                                                                                                                                                  -----CysSer 145
                                                                                                                                                        ATCAGCTTTCCGTTGACCACACGCCCTGGGCCAAGTGGTGGAAGACAAGAAGTCTATC 1005
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Search completed: March 31, 2003, 04:26:21 Job time: 45.3198 secs

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                                                                                           TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tent No.
                                                                                                                                              REFERENCE/DOCKET NUMBER: 27
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 346-5750
                                                                                                                                                                                               FILING DATE: 04-APR-1991
ATTORNEY/AGENT INFORMATION:
NAME: No. 5800987and, Greta E.
REGISTRATION NUMBER: 35,302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Beavo, Joseph A.
APPLICANT: Bentley, Kelley
APPLICANT: Charbonneau, Harry
APPLICANT: Sonnenburg, William K.
TITLE OF INVENTION: DNA Encoding Mammalian
TITLE OF INVENTION: Phosphodiesterases
                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 435
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Rel
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APPLICATION NUMBER: US 07/688,356
PTITING DATE: 04-APR-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/01 FILING DATE: 31-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Chicago
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                    STRANDEDNESS:
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                                                        ENGTH:
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5800987
                            nucleic acid
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                                                                                                                                 (312) 984-9740
                    single
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                                                                                                                                                                                      27866/30822
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Best Local Similarity:
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                                                                                                                                                                                             Sequence 38, Application US/09139491
Patent No. 6015677
GENERAL INFORMATION:
APPLICANT: Beavo, Joseph A.
                                                                                                                                                                            APPLICANT:
                                                                                                    APPLICANT: Bentley, Keiley
APPLICANT: Charbonneau, Harry
APPLICANT: Sonnenburg, William K.
TITLE OF INVENTION: DNA Encoding Mammalian
TITLE OF INVENTION: Phosphodiesterases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: FEATURE:
                                                                      NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
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STREET:
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                                  ADDRESSEE: Marshall ADDRESSEE: Bicknell
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26 AspProLys -----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCAGCTTTCCGTTGACCACAGGACGCCTGGGCCAAGTGGTGGAAGACAAGAAGTCTATC 1005
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 Street
                 Two First National Plaza, 20 South Clark
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148..2910
                                                 Marshall, O'Toole, Gerstein, Murray
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Conservative:
Mismatches:
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; Sequence 38, Application U
; Patent No. 5789553
; GENERAL INFORMATION:
APPLICANT: Beavo, Jose
; APPLICANT: Bentley, Ke
; APPLICANT: Charbonneau
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TELEFAX: (312) 984-9740
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 38:
SEQUENCE CHARACTERISTICS:
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LOCATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 LeuHiSCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAlaArgVal:::|||||||| ||| ||| |||
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                                                                                                                                                                                                                                                                                                                        IleGluPhe-----PheSerArgGluAlaAspAsnValLysAspLysLeu-----
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                                                                                                                                                         GTGCAGGCCATGCTCTGTGTCCCTGTCATCAGCCGGGCCACTGACCAGGTC 1116
                                                                                                                                                                                         LysArgThrAspLeuCysAspHisAlaLeuHisArgSerHisAspGluLeu
                                                                                                                                                                                                                          CAGCTGAAAGATCTCACCTCCGAGGATATGCAACAGCTGCAAAGCATGTTGGGCTGTGAG 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValSerArgAsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArgIleAspSerAsp 108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AspProLys-----
                                                                                                                                                                                                                                                                                           ATCAGCTTTCCGTTGACCACAGGACGCCTGGGCCAAGTGGTGGAAGACAAGAAGTCTATC 1005
                                                                                                                                                                                                                                                                                                                                                             -----CTTCAGCTCTCCTGCAAGGTCATTGGAGATAAAGTACTGGAGGAAGAG 945
                                                                                                                                                                                                                                                                                                                                                                                              IleSerGlyThrLeuLysPheAlaCysGluSerIleValGluTyrGluAspGluLeu 128
                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCAACAGGAGACCCAGGCATCCCGCTGCTGCTGCTGCTGGTATCCGAGGACAAT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MetLysGluTyrGlyGluGlnTleAspProSerThrHisArgLysAsnTyrValArgVal 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCGCATACACAAACCAAGACCGAAAGATCCTGCAGCTTTGCGGGGAGCTCTACGAC---
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 Bentley, Kelley
Charbonneau, Harry
                                     Beavo, Joseph A.
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Conservative:
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Best Local Similarity:
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CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/297,494
FILING DATE: 29-AUG-1994
APPLICATION NUMBER: US 07/688,356
FILING DATE: 04-APR-1991
ATTORNEY/ACENT INFORMATION:
NAME: NO. 5789553and, Greta E.
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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CURRENT APPLICATION DATA:
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TITLE OF INVENTION:
TITLE OF INVENTION:
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745
                                                                   685
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY:
LOCATION:
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COMPUTER: II
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STATE: Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: Two First National Plaza, STREET: Street
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GTCGCATACACAAACCAAGACCGAAAGATCCTGCAGCTTTGCGGGGAGCTCTACGAC---
                            ValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluValCysAspArg
                                                               GTGGCCCCGGAAGCGACCCAGAATCCTCCGGAGGAGGCAGCGGGAGACCAGAAGGGTGGG
                                                                                             IleAsnProAspGlySerGlnSerValValGlu------
                                                                                                                                GAGAAGCATACCCTGGTGGCCCTGAAAAGGGTGCAGGCCTTGCAGCAGCGCGAGTCCAGC 684
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VENTION: DNA Encoding Mammalian
VENTION: Phosphodiesterases
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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312) 984-9740
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76.00
37.06%
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Matches:
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Best Local Similarity:
Query Match:
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; LOCATION:
US-08-297-510-38
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APPLICANT: Beavo, Joseph A.
APPLICANT: Bentley, Kelley
APPLICANT: Charbonneau, Harry
APPLICANT: Sonnenburg, William K.
TITLE OF INVENTION: DNA Encoding Mammalian
TITLE OF INVENTION: Phosphodiesterases
NUMBER OF SEQUENCES: 58
CORRESPONDENCE ADDRESS:
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US-08-297-510-38
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                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 38
SEQUENCE CHARACTERISTICS:
LENGTH: 4131 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/688,356
FILING DATE: 04-APR-1991
ATTORNEY/AGENT INFORMATION:
NAME: NO. 5602019and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 27866/30822
REFERENCE/DOCKET NUMBER: 27866/30822
TELECOMMUNICATION INFORMATION:
TELEPANE: (312) 384-5750
TELEPAX: (312) 384-9740
TELEX: 25-3856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/297,510
FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: CDNA
STREET: Two First National Plaza, 20 South Clark STREET: Street CITY: Chicago STATE: Illinois COUNTRY: USA
                                        26 AspProLys-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Marshall
ADDRESSEE: Bicknell
                                                                                                   6 LeuHiSCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAlaArgVal 25 :::|||||||
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18.78%
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                                      ------LysThrIleGlnMetGlySerPheArg 37
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Matches:
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Indels:
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	ION:	٠	
	REGISTRATION NUMBER: 35,302		
	NAME: No. 5776752and, Greta E.	٠. ٠	
	T THEORMATION:		
	FILING DATE: APPLICATION NUMBER: US 07/688,356	٠. ٠.	
	APPLICATION NUMBER: 08/297,494	•• •	
	CLASSIFICATION: 435		
	APPLICATION NUMBER: US/08/4/9,532		
	OPERATING SISTEM: PC-DUS/MS-DUS SOFTWARE: PatentIn Release #1.0, Version #1.25		
	BM PC compatible	٠.	
	COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk	٠. ٠.	
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	COUNTRY: USA	٠. ٠.	
	CITY: Chicago	••	
	STREET: Two First National Plaza, 20 South Clark STREET: Street	·· ··	
	Bicknell		
	CORRESPONDENCE ADDRESS: ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &		
	NUMBER OF SEQUENCES: 58		
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	TITLE OF INVENTION: DNA EDCOCIOR MARTINALIAN		
	APPLICANT: Charbonneau, Harry	•••	
	APPLICANT: Beatley, Kelley		
	INFO		
	Sequence 38, Application US/U84/9532 Patent No. 5776752	 S. G.	
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	146 LysargThraspLeuCysaspH1salaLeuH1sargSerH1saspGluLeu 162 ::: :::: ::::	δ	
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1005	CGTTGACCACAGGACGCCTGGGCCAAGTGGTGGAAGACAAGAAGTCTATC	Db	
143	129 IleGluPhePheSerArgGluAlaAspAsnValLysAspLysLeu	Qy	
945	AGCTCTCCTGCAAGGTCATTGGAGATAAAGTACTGGAGGAAGAG	Db	
128		Qγ	
897	841 CTGCAACAGGAGACCCAGGCATCCCGCTGCTGCTGCTGCTGGTATCCGAGGACAAT	망	
108	sp	Qy	
840		망	
88	69 MetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgVal	Qy	
801	745 GTCGCATACACAAACCAAGACCGAAAGATCCTGCAGCTTTGCGGGGAGCTCTACGAC	Db	
83	rg	Qy	
744	TGGCCCCGGAAGCGACCCAGAATCCTCCGGAGGAGGCAGCGGGAGACCAGAAGGGTGGG	DЬ	
48	<pre>IleAsnProAspGlySerGlnSerValValGlu</pre>	Qy	

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US-08-297-494-38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                    APPLICANT: Beavo, Joseph A.
APPLICANT: Bentley, Kelley
APPLICANT: Charbonneau, Harry
APPLICANT: Sonnenburg, William K.
TITLE OF INVENTION: DNA Encoding Mammalian
TITLE OF INVENTION: Phosphodiesterases
NUMBER OF SEQUENCES: 58
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1066 GTGCAGGCCATGCTCTGTGTCCCTGTCATCAGCCGGGCCACTGACCAGGTC
                                                                                                                                                        STREET: Street
CITY: Chicago
STATE: Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          946
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 574 GTGCACTGTGGT------CAGCTGAGTGACAATGAGGAGTGGAGCCTGCAAGCTGTG
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                                                                                                                                                                                                STREET: Two First National Plaza, STREET: Street
                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         49
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                                                                                                                                          COUNTRY:
                          SOFTWARE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                        38, 55,
No. 5580771
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IleSerGlyThrLeuLysPheAlaCysGluSerIleValGluGluTyrGluAspGluLeu 128
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCTGAAAGATCTCACCTCCGAGGATATGCAACAGCTGCAAAGCATGTTGGGCTGTGAG 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCAGCTTTCCGTTGACCACAGGACGCCTGGGCCAAGTGGTGGAAGACAAGAAGTCTATC 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----CTTCAGCTCTCCTGCAAGGTCATTGGAGATAAAGTACTGGAGGAAGAG 945
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCGCATACACAAACCAAGACCGAAAGATCCTGCAGCTTTGCGGGGAGCTCTACGAC---
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IleAsnProAspGlySerGlnSerValValGlu-----------
      ARE: PatentIn Release #1.0, APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/08297494
                                                                                                                                          USA
                                                                                                                                                                                                                                          Bicknell
                                                                                                                                                                                                                                                          Marshall, O'Toole, Gerstein, Murray &
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Indels:
                        Version #1.25
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Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; NAME/KEY:
; LOCATION:
US-08-297-494-38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 27
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 346-5750
TELEPAX: (312) 984-9740
TELEX: 25-3856
                                      1006 CAGCTGAAAGATCTCACCTCCGAGGATATGCAACAGCTGCAAAGCATGTTGGGCTGTGAG 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 04-APR-1991 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
                                                                                                                      946
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146 LysArgThrAspLeuCysAspHisAlaLeuHisArgSerHisAspGluLeu 162
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE:
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                                                                                                                  ATCAGCTTTCCGTTGACCACAGGACGCCTGGGCCAAGTGGTGGAAGACAAGAAGTCTATC
                                                                                                                                                    IleGluPhe-----PheSerArgGluAlaAspAsnValLysAspLysLeu-----
                                                                                                                                                                                            -----CTTCAGCTCTCCTGCAAGGTCATTGGAGATAAAGTACTGGAGGAAGAG
                                                                                                                                                                                                                              IleSerGlyThrLeuLysPheAlaCysGluSerIleValGluTyrGluAspGluLeu 128
                                                                                                                                                                                                                                                                          CTGCAACAGGAGACCCAGGCATCCCGCTGCTGCTGCTGCTGGTATCCGAGGACAAT---
                                                                                                                                                                                                                                                                                                            ValSerArgAsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArgIleAspSerAsp 108
                                                                                                                                                                                                                                                                                                                                                    MetLysGluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgVal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluValCysAspArg
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Matches:
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Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: HP Vectra 486/3
OPERATING SYSTEM: MSDOS V
SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 3752 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: PB
TELECOMMUNICATION INFORMATION:
TELEPHONE: (301) 309-8504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Streptococcus pneumoniae Polynucleotides and Sequences NUMBER OF SEQUENCES: 391
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PRIOR APPLICATION DATA:
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MEDIUM TYPE: Diskett
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                                                                        701 ATTTCTACTTTGGAACAAGAAGTTGCTACTGCTCAACATCAAGTAGATAATTTGAAAAAA 760
                                                                                                             51 TyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluValCysAspArgMetLys 70
                                                                                                                                                                                          31 IleGlnMetGlySerPheArgIleAsnProAspGlySerGlnSerValValGluValPro 50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: double
                                  71 GluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgValValSer 90
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
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GAACTTGAAAAACTTCTTGACAGCCTTGATCCTGAAGGTAAGACTCAGGATGAATTAGAT 931
                                                                                                                                                   CTTCTTGCTGGTGCG------GATCCTGATGATGGCACAGAAGTTATAGAAGCTAAA 811
                                                                                                                                                                                                                                                     ValAspGluLeuGluTrpGluIleAla------ArgValAspProLysLysThr 30
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5. 6420135
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Maryland
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Diskette, 3.50 inch, 1.4Mb storage
Vectra 486/33
                                                                                                                                                                                                                                                                                                                                                                  9.23
76.50
39.73%
21.23%
9.03%
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Matches:
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RESULT 9
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   Percent Similarity:
                                  Pred. No.:
                                                 Alignment Scores:
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Patent No. 5
                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/688
FILING DATE: 04-APR-1991
ATTORNEY/AGENT INFORMATION:

NAME: No. 5389527and, Greta I
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 2788
                                                                                                                                                                                                                                                TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                  FEATURE:
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                                                                                                                                                  MOLECULE TYPE:
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FILING DATE: 19920420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
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STATE: Illinois
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                                                                                                               NAME/KEY:
                                                                                                                                                                 TOPOLOGY: 11r
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TELEFAX: (312) 984-9740
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & ADDRESSEE: Bicknell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
                                                                                                   LOCATION:
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5389527
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Sonnenburg, William K.
VENTION: DNA Encoding Mammalian
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Matches:
Conservative:
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Best Local Similarity:
Query Match:
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US-08-971-988-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-082-502-21 (1-162) x US-08-971-988-1 (1-6519)
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 Sequence 159, Application US/08961083
Patent No. 6159469
GENERAL INFORMATION:
APPLICANT: Choi et. al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX:
INFORMATION FOR SEQ ID NO:
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LENGTH: 6519 base pair
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ORIGINAL SOURCE:
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HYPOTHETICAL:
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                                                                                                                                                                                                                                                                   122 GluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnVal---Lys
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STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                             AspSerAspIleSer----
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                                                                                                                                                                                GATGACCTGGAGAAGGAAGAAGGAAGAAGGAAAAAAAGGAACAGCAAACATCAA 5144
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. APPLICATION NUMBER:
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OPERATING SYSTEM: MSD
OPERATING SYSTEM: MSD
OPERATION SAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Human Genome Sciences,
STREET: 9410 Key West Avenue
CITY: Rockville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: double
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Brookes, A. Anders REGISTRATION NUMBER: 36,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                         ValAspGluLeuGluTrpGluIleAla------ArgValAspProLysLysThr
ATATTACTTGGAGGGGCTGATNCTGAAGATGATACTGCTGCTCTTCAAAATAAATTAGCT
                                 PhePheSerArgGluAlaAspAsn----
                                                                                            GlyThrLeuLysPheAlaCysGluSerIleValGluGluTyrGluAspGluLeuIleGlu 130
                                                                                                                              AAAGAAGCAGAAGAAGCTGAGTTGGATAAAAAAGCTGATGAACTTCAAAATAAAGTTGCT
                                                                                                                                                              ArgAsnGlyGluSerSerGluLeuAspLeuGlnGlyIleArgIleAspSerAspIleSer 110
                                                                                                                                                                                              GAACTTGAAAAACTTCTTGACAGCCTTGATCCTGAAGGTAAGACTCAGGATGAATTAGAT 805
                                                                                                                                                                                                                            GluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgValValSer 90
                                                                                                                                                                                                                                                            TyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluValCysAspArgMetLys 70
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Conservative:
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                               US-10-082-502-21 (1-162) x US-08-588-985-1 (1-6519)
                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
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                                                                                                                                                                     Alignment Scores:
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                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
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APPLICATION NOTA:

APPLICATION NOTA:

APPLICATION NOTA:
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TITLE OF INVENTION: CDNA OF DOCK180 GENE AND DOCK180 PROTEIN
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                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 6519 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 33,367
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                     ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                         FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                                       ANTI-SENSE:
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6 LeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAlaArgVal 25
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Indels:
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US-08-971-988-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                              FILING DATE: 17-NOV-1:
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 01
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4768
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                               REGISTRATION NUMBER: 33,367
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                           SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
                                                                                ATTORNEY/AGENT INFORMATION: NAME: Warren M. Cheek, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Michiyuki MATSUDA et al.
TITLE OF INVENTION: cDNA OF DOCK180 GENE AND DOCK180 PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5085 GATGACCTGGAGAAGGAGAAGAAGGACAAGAAGAAGGAAAAAAGGAACAGCAAACATCAA 5144
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                                                                                                                                                                                                                               OPERATING SYSTEM:
SOFTWARE: Wordper
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CITY: Washington
STATE: D.C.
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                                                                                                                                                                                     APPLICATION NUMBER: US/08/971,988 FILING DATE: 17-NOV-1997
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              TELEPHONE:
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                                                                               Warren M. Cheek,
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               202-371-8850
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Street, N.W.,
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; NUMBER OF SEQ ID NOS:
; SOFTWARE: FastSEQ for
; SEQ ID NO 14
; LENGTH: 915
; TYPE: DNA
; ORGANISM: MOUSE
US-09-724-864-14
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                                                      ; Sequence 10, Application; Patent No. 5766597; GENERAL INFORMATION: APPLICANT: Paolett
                                                                                                                                                          RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
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APPLICANT: Watson, James D
APPLICANT: Murison, James G
TITLE OF INVENTION: Polynucleotides, polypeptides expressed
TITLE OF INVENTION: by the polynucleotides and methods for t
FILE REFERENCE: 11000.1050U1
CURRENT APPLICATION NUMBER: U5/09/724,864
CURRENT FILING DATE: 2000-11-28
PRIOR APPLICATION NUMBER: U.S. No. 6380362 60/171,678
PRIOR FILING DATE: 1999-12-23
APPLICANT: de Tais:
APPLICANT: Tine, JO
TITLE OF INVENTION:
                                                                                                                                                                                              572 AGAGAAGAGCTT 583
                                                                                                                                                                                                                                                                            512
                                                                                                                                                                                                                                                                                                            139 ValLysAspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisArgSer 158
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                                                                                                                                                                                                                                  159 HisAspGluLeu 162
                                                                                                                                                                                                                                                                                                                                                    452 TACCTGGGTGAGTTTGGAGAGGACCAGATCTATGAAGCCTACCGCCAAGGCCAAGCCAAGT
                                                                                                                                                                                                                                                                                                                                                                            120 IleValGluGluTyr---GluAspGluLeuIleGluPhePheSerArgGluAlaAspAsn 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        341 CAGATGAAGCGTCTCACGGGCCCAGGACTTAGCAAGGGGCCAGAG------CCAAGA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26 AspProLysLysThrIleGlnMetGlySerPheArgIleAsnProAspGlySerGlnSer 45
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                                                                                                                                                                                                                                                                          CTGGAGGCGCTGCTGTGGGGGCACCCATGGGCCCTGCTCACAGGAGATCCTGGCCCAG
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                                                                                                                                                                                                                                                                                                                                                                                                                              ATCAGCGTGATGATTTCTGGGGGGTCCCTGGCCCAATAGGCTCTCCAAGACGTGTTTCCAC 451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FastSEQ for Windows Version 4.0
                                                                                                                Application US/08257073
                  Paoletti, Enzo
de Taisne, Charles
Tine, John A.
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MALARIA RECOMBINANT POXVIRUS VACCINE
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Best Local Similarity:
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TELEX: 425066 CURTMS
INFORMATION FOR SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/257,073
FILING DATE: 09-JUN-1994
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/075,783
FILING DATE: 11-JUN-1993
PRIOR APPLICATION NUMBER: US 07/852,305
APPLICATION NUMBER: US 07/852,305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Frommer, William S. REGISTRATION NUMBER: 25,506 REFERENCE/DOCKET NUMBER: 45. TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 18-MAR-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US O'
FILING DATE: 20-MAR-1991
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy
                                    1432 GATAATAAGGAAAGAAAATATTCATTAATAACATTAAAAAAACAAATTGATTTAGAAGAA 1491
                                                                                                              1372
                                                                                                                                                                                  1312 GTATATCCTTTACCACTCACTGATATTCATAATTCATTAGCTGCAGATAATGATAAAAAT 1371
                                                                                                                                                                                                                                                                                                                                 1192 GATCCACTTGAATTAGAATATTATTTAAGAGAAAAAAATAAAAAGTTGATGTAACACCT 1251
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                                                                        91
                                                                                                                                                                                                                    56 AlaHis-----LeuThrGluLeuLeuGluGluValCys-----AspArgMetLys 70
                                                                                                                                                                                                                                                                                                                                                    16 AspGluLeuGluTrpGluIleAlaArgValAspProLysLysThrIleGlnMetGlySer
                                                                                                                                              71 GluTyrGlyGluGlnIleAspProSerThrHisArgLysAsnTyrValArgValValSer
                                                                                                                                                                                                                                                                                           36 PheArgIleAsnProAspGlySerGlnSerValValGluValProTyrAlaArgSerGlu 55
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IleArgIleAspSerAspIleSerGlyThrLeuLysPheAlaCysGluSerIleValGlu 122
                                                                      ArgAsnGlyGlu-----
                                                                                                                                                                                                                                                          AMATCACAAGATCCTACGAAATCTGTTCAMATACCAAAAGTTCCTTATCCAAATGGTATT 1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 i: 5181 base pairs nucleic acid
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(212) 840-0712
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SEQUENCE CHARACTERISTICS: LENGTH: 744 base pairs

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US-09-163-285-3
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Best Local Similarity:
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                                                                                                                                                                                                                                                                                       Sequence 1, Application US/09163285 Patent No. 6204013
                                                                                                                                                                                                                                                       GENERAL INFORMATION: APPLICANT: Khodad
               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                                                                                                                              TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                             CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                 505 GACTGGTACTTCCACCATCAGGAGCAGCCCCTACAAAATTTTCTCTGT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: single
                                                                       COUNTRY: USA
ZIP: 02109
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 OPERATING SYSTEM:
                                                                                                                                                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---GlyThrLeuLysPheAlaCysGluSerIleValGluGluTyrGluAspGluLeuIle 129
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCGAGAGGTGCTGGAGCTGGGGCAGGTGCTG-----GATACAGGCAAGAGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                               Glu---PhePheSerArgGluAlaAspAsnValLysAspLysLeuCys 144
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CysGlyAlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAlaArgValAsp---
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                                                                                                                          Boston
                                                                                                         Massachusetts
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28 State Street
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PC-DOS/MS-DOS
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Best Local Similarity:
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Sequence 14, Application US/09724864 Patent No. 6380362
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INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/163,285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: (617)227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/0 FILING DATE: June 24, 19 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
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                                                                                                                                         130 Glu---PhePheSerArgGluAlaAspAsnValLysAspLysLeuCys 144
                                                                                                                                                                                          569
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 1512 base pairs TYPE: nucleic acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              47
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Mandragouras, Amy E REGISTRATION NUMBER: 36,20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27 ProLysLysThrIleGlnMetGlySerPheArgIleAsnProAspGlySerGlnSerVal 46
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 CysGlyAlaCysArgAlaLeuValAspGluLeuGluTrpGluIleAlaArgValAsp---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValGluValProTyrAlaArgSerGluAlaHisLeuThrGluLeuLeuGluGluValCys
                                                                                                    GACTGGTACTTCCACCATCAGGAGCAGCCCCTACAAAATTTTCTCTGT
                                                                                                                                                                                                                                                                                                                     GlnGlyIleArgIleAspSerAspIleSer------
                                                                                                                                                                                                                                                                                                                                                             TCACTGAGATATGCCAAGGGTCAGAGTCAGACCATGGCAACACTGAAAGGCCTAGTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AspArgMetLysGluTyrGlyGluGlnIleAspProSerThrHis-----ArgLysAsn 84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTCGAGAGGTGCTGGAGCTGGGGCAGGTGCTG-----GATACAGGCAAGAGGAAG
                                                                                                                                                                                      GTCACATACCTCAAGAAGCAGTGTGAGACCATGTTGGAGGAGTTTGAAGACATTGTGGGA 628
                                                                                                                                                                                                                                                                        AAGGGGGTGAAGGTGGATCTGGGGATCCCTCTGGAGCTTTGGGATGAGCCCAGCGTGGAG 568
                                                                                                                                                                                                                                                                                                                                                                                                     TyrValArgValValSerArgAsnGlyGluSer-----SerGluLeuAspLeu 100
                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGCGGATCCTGGACTAT--------AGTGTTCACGCTGAGCGCAAGGGC
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Result
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-DB-Issued_patents_NA -QFMT-fastap -SUFFIX-FI1 -MINNATCH-0.1 -LOOPCL-0
-LOOPEXT=0 -UNITS-bits -START-1 -END--1 -MATRIX-blosum62 -TRANS-buman40.cdi
-LIST-45 -DOCALIGN-200 -THR_SCORE-pct -THR_MAX-100 -THR_MIN-0 -ALIGN-15
-MODE-LOCAL -OUTFMT-pto -NORM-ext -HEAPSIZE-500 -MINLEN-0 -MAXLEN-200000000
-USER-US10082502_@CGN_11_131_@runat_24032003_135100_6616 -NCPU-6 -ICPU-3
-NO.XLPXY -NO.WMAP -LARGEQUERY -NEG_SCORES-0 -WAIT -LONGLOG -DEV_TIMEOUT-120
-WARN_TIMEOUT-30 -THREADS-1 -XGAPOP-10 -XGAPEXT-0.5 -FGAPOP-6 -FGAPEXT-7
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2: /cgn2_6/ptodata/
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US-08-961-083-159

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Fequence 3, Application US/09163285

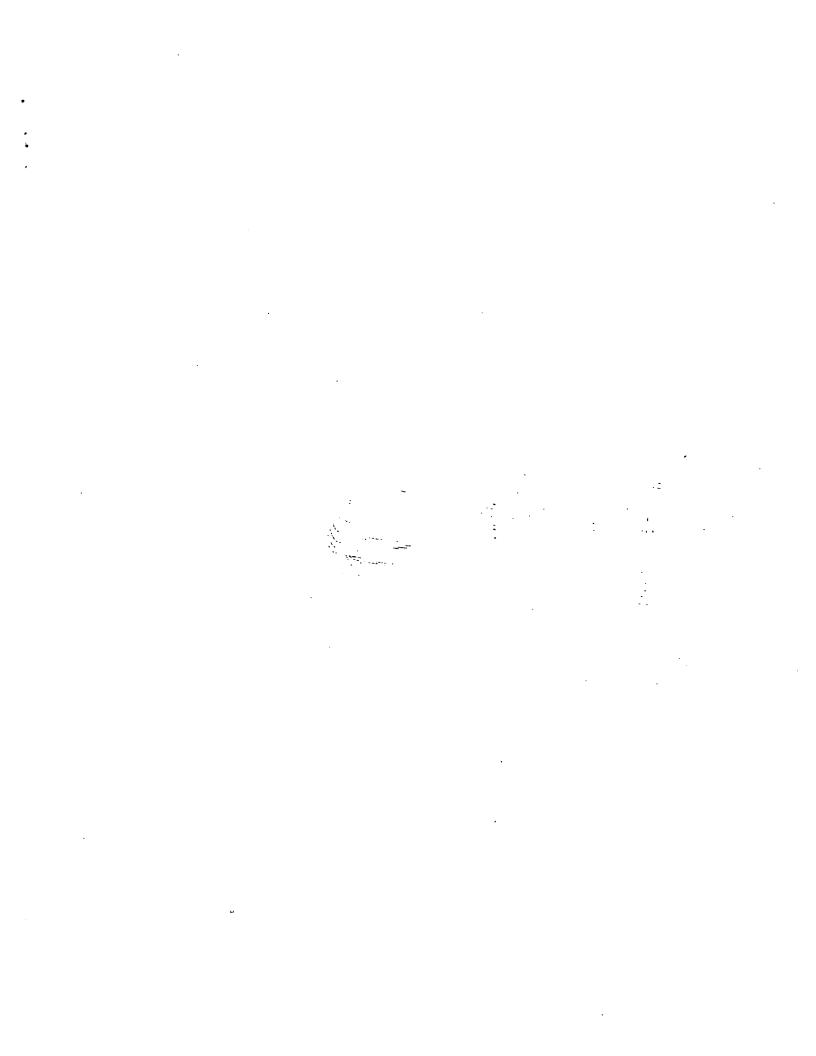
Patent No. 6204013

Patent No. 6204013
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                                                                                                                                                                                                                                                                                                                                         APPLICANT: Khodadou
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
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COUNTRY:
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CLASSIFICATION:
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5 PCT - US92-0322-38 US-08-961-527-103 US-08-938-105-2 US-09-071-035-3 US-09-071-035-1 US-08-803-973-1 US-08-803-973-1 US-08-803-972-1 US-08-876-444-41 US-08-877-644-42 US-08-297-494-42 US-08-297-494-42 US-08-297-494-42 US-08-297-494-42 US-08-297-491-42 US-08-455-526-42 US-08-455-526-42 US-08-455-526-42 US-08-455-526-42 US-08-455-525-42 US-08-455-525-42 US-08-455-525-42 US-08-455-525-42 US-08-455-525-42 US-08-455-525-42 US-08-455-525-42 US-09-134-001C-578 US-08-894-017-24
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ALIGNMENTS

TELEFAX: (REFERENCE/DOCKET NUMBER: MN
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEPAX: (617)742-4214 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/0
FILING DATE: June 24, 19
ATTORNEY/AGENT INFORMATION: COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC competible
OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA: NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,207 Khodadoust, Mehran
VENTION: NOVEL MSP-5 PROTEIN AND NUCLEIC ACID MOLECULES
VENTION: AND USES THEREOF SEQ LAHIVE & COCKFIELD, 60/090,398 US/09/163, 285 Version #1.25



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Search completed: March 31, 2003, 11:59:14 Job time: 51.9767 secs

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; ORGANISM: Homo Sapien 
US-10-142-419-173
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US-10-142-419-173
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NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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CURRENT FILING DATE: 2002-05-10
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                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C244
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                                 GAAATTGCCCAGGTGGACCCCAAGAAGACCATTCAGATGGGATCTTTCCGGATCAATCCA
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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Gerritsen, Mary E.
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APPLICANT: Beresini, Mauree
APPLICANT: Desnoyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Eller
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NUMBER OF SEQ ID NOS: 550
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CURRENT FILING DATE: 2002-04-15
                                                                                                                                                                                                                                                                    TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3330R1C38
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Filvaroff, Ellen
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; ORGANISM: HOMO
US-10-143-114-173
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US-10-143-114-173
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: p3330R1C211
CURRENT APPLICATION NUMBER: US/10/143,114
CURRENT FILING DATE: 2002-05-09
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ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys
                                                                               CATCGCAAGAACTACGTACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACTGGACCTA
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                          CAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCATT
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
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GENERAL INFORMATION
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C59
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Filvaroff, Ellen
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b. US20030037623A1
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RESULT 11
US-10-142-431-173
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; Publication No. US20030036179A1
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; ORGANISM: Homo Sapien
US-10-140-474-173
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C162
CURRENT APPLICATION NUMBER: US/10/140,474
CURRENT FILING DATE: 2002-05-06
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                                                                                                      AspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisArgSerHisAsp 160
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Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
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Percent Similarity:
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; ORGANISM: Homo
US-10-142-431-173
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LENGTH: 1210
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C251
CURRENT APPLICATION NUMBER: US/10/142,431
CURRENT FILING DATE: 2002-05-10
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                                                                                                                               GluIleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro
                                                           ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys
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GACAAACTTTGCAGTAAGCGAACAGATCTTTGTGACCATGCCCTGCACATATCGCATGAT
                CTGCTGGAGGAGATATGTGACCGGATGAAGGAGTATGGGGGAACAGATTGATCCTTCCACC
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
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Gerritsen, Mary E.
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Filvaroff, Ellen
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DeForge, Laura
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Sequence 173, Application US/10137865
Publication No. US20030032155A1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Maureen
APPLICANT: DeForge, Laura
APPLICANT: DeForge, Laura
APPLICANT: DeForge, Laura
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wei-Qiang
APPLICANT: Godowski, Paul J.
APPLICANT: Sherwood, Steven
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US-10-137-865-173
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; ORGANISM: Homo
US-10-176-921-173
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Tumas, Daniel
Watanabe, Colin K
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                             Smith, Victoria
Stewart, Timothy A.
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RESULT 10
US-10-140-474-173
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US-10-137-865-173
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APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Mauree
APPLICANT: Desroyers, Luc
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Ellen
APPLICANT: Gao, Wei-Oiang
APPLICANT: Gerritsen, Mary
APPLICANT: Goddard, Audrey
                                                                                             Sequence 173, Applic Publication No. US20 GENERAL INFORMATION:
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CURRENT APPLICATION NUMBER: US/10/137,865
CURRENT FILING DATE: 2002-05-03
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            Gao, Wei-Qiang
Gerritsen, Mary
                                                          Beresini, Maureen
DeForge, Laura
                                   Desnoyers, Luc
Filvaroff, Ellen
  Goddard, Audrey
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5. US20030032156A1
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                             ; TYPE: DNA
; ORGANISM: HOMO
US-10-176-918-173
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US-10-176-918-173
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         Alignment Scores:
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                                                          SEQ ID NO 173
LENGTH: 1210
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APPLICANT:
APPLICANT:
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                                                                                              APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C382
CURRENT APPLICATION NUMBER: US/10/176,918
CURRENT FILING DATE: 2002-06-20
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APPLICANT:
APPLICANT:
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APPLICANT: Beresini, Ma
APPLICANT: DeForge, Lau
                                                                             NUMBER OF SEQ
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Godowski, Paul J.
Gurney, Austin L.
Sherwood, Steven
Smith, Victoria
Stewart, Timothy A.
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Gerritsen, Mary E.
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DeForge, Laura
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                      APPLICANT: Zhang, Zemin TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: 93390R1C288
CURRENT APPLICATION NUMBER: US/10/176,921
CURRENT FILING DATE: 2002-06-20
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Prior Application removed - NUMBER OF SEQ ID NOS: 550
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Godowski, Paul J.
Gurney, Austin L.
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Gerritsen, Mary E.
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Filvaroff, Ellen
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NUMBER OF SEQ ID NOS: 550
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Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
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Prior Application removed - SI
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
LENGTH: 1210
TYPE: DNA
ORGANISM: HOMO Sapien
US-10-175-746-173
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CURRENT FILING DATE: 2002-06-19
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Wood, William
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Gurney, Austin L.
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                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo Sapien US-10-121-049-173
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CURRENT FILING DATE: 2002-04-12
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 550
SEQ ID NO 173
SEQ ID NO 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 173, Application US/10121049 Publication No. US20030022239A1 GENERAL INFORMATION:
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
FITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P333ORIC17
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LeuLeuGluGluValCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThr
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RESULT 4
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US-10-123-904-173
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APPLICANT: Beresini, Maures
APPLICANT: DeForge, Laura
APPLICANT: Desnoyers, Luc
APPLICANT: Filvaroff, Eller
APPLICANT: Gao, Wei-Qiang
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APPLICANT:
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C54
CURRENT APPLICATION NUMBER: US/10/123,904
CURRENT FILING DATE: 2002-04-16
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DR FILING DATE: 1997-12-11

DR APPLICATION NUMBER: 60/069278

DR FILING DATE: 1997-12-11

DR APPLICATION NUMBER: 60/069334

DR FILING DATE: 1997-12-11

DR APPLICATION NUMBER: 60/069694

DR FILING DATE: 1997-12-16

DR APPLICATION NUMBER: 60/072320

DR APPLICATION NUMBER: 60/073612

DR APPLICATION NUMBER: 60/073612

OR APPLICATION NUMBER: 60/074086
OR APPLICATION NUMBER: 60/074086
OR FILING DATE: 1998-02-09
OR APPLICATION NUMBER: 60/0774092
OR FILING DATE: 1998-03-12
OR FILING DATE: 1998-03-12
OR APPLICATION NUMBER: 60/07791
OR FILING DATE: 1998-03-20
OR APPLICATION NUMBER: 60/079294
OR FILING DATE: 1998-03-25
OR APPLICATION NUMBER: 60/079663
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OR APPLICATION NUMBER: 60/081203
OR FILING DATE: 1998-03-31
OR APPLICATION NUMBER: 60/081203
OR FILING DATE: 1998-04-09
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OR APPLICATION NUMBER: 60/089947
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OR APPLICATION NUMBER: 60/091360
OR FILING DATE: 1998-07-01
OR APPLICATION NUMBER: 60/091360
OR FILING DATE: 1998-07-01
OR APPLICATION NUMBER: 60/091519
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APPLICATION NTW.
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                                                                ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys
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PILING DATE: 1998-04-15
APPLICATION NUMBER: 60/081818
FILING DATE: 1998-04-15
APPLICATION NUMBER: 60/082999

APPLICATION NUMBER: 60/081695 FILING DATE: 1998-04-14 APPLICATION NUMBER: 60/081817 FILING DATE: 1998-04-15

FILING DATE: 1998-04-24
APPLICATION NUMBER: 60/083322
FILING DATE: 1998-04-28
APPLICATION NUMBER: 60/083545

PRIOR

DR FILING DATE: 1998-04-29

OR APPLICATION NUMBER: 60/084600

OR FILING DATE: 1998-05-07

OR APPLICATION NUMBER: 60/084627

OR APPLICATION NUMBER: 60/084637

OR APPLICATION NUMBER: 60/085149

OR FILING DATE: 1998-05-07

OR APPLICATION NUMBER: 60/085323

OR APPLICATION NUMBER: 60/085323

OR APPLICATION NUMBER: 60/085323

OR APPLICATION NUMBER: 60/085339

OR FILING DATE: 1998-05-13

OR APPLICATION NUMBER: 60/085339

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OR APPLICATION NUMBER: 60/085379

OR APPLICATION NUMBER: 60/085579

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OR APPLICATION NUMBER: 60/085704
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OR APPLICATION NUMBER: 60/086430
OR FILING DATE: 1998-05-22
OR APPLICATION NUMBER: 60/087106
OR FILING DATE: 1998-05-26
OR APPLICATION NUMBER: 60/08706
OR FILING DATE: 1998-05-04
OR APPLICATION NUMBER: 60/088026
OR FILING DATE: 1998-06-04
OR APPLICATION NUMBER: 60/088730
OR FILING DATE: 1998-06-10

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FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/028,072
CURRENT FILING DATE: 2001-12-19
                               APPLICANT: Zhang
TITLE OF INVENTION:
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                                                                                                              DeForge, Laura
Desnoyers, Luc
Filvaroff, Ellen
Gao, Wei Qiang
Gerritgen, Mary E.
Goddard, Audrey
Goddwski, Paul J.
Gurney, Austin L.
                                                   Tumas, Daniel
Watanabe, Colin K
Wood, William
                                                                                  Smith, Victoria Stewart, Timothy
                                                                                                       Sherwood, Steven
                                                                                                                                                                                                      Beresini, Maureen
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b. US20030004311A1
                                                                                 Timothy A.
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PRIOR APPLICATION NUMBER: 60,049911
PRIOR FILING DATE: 1997-06-18
PRIOR PHILING DATE: 1997-08-26
PRIOR APPLICATION NUMBER: 60,059113
PRIOR PHILING DATE: 1997-09-17
PRIOR PHILING DATE: 1997-09-19
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PRIOR PHILING DATE: 1997-11-0-29
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Result
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-QB-Published_Applications_NA -QFMT-fastap -SUFFIX-rnpb -MINMATCH-0.1
-LOOPCL-0 -LOOPEXT-0 -UNITS-bits -START-1 -END--1 -MATRIX-blosum62
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-FGAPEXT-7 -YGAPOP-10 -YGAPEXT-0.5 -DELOP-6 -DELEXT-7
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Listing first 45 summaries
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                                                                                              Length
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US-10-028-072-173
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Sequence 309, App
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Sequence 173, App
                                                                                            Description
                                                                                                                                                                                                      printed,
                                  NUMBER OF SEQ ID NOS: 341
SOFTWARE: COTIXA Invention D.
SEQ ID NO 309
LENGTH: 814
TYPE: DNA
     ; ORGANISM: Homo sapiens 
US-09-864-864-309
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US-09-864-864-309
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APPLICANT: Xu, Jiangchun
APPLICANT: Mitcham, Jenr
APPLICANT: Harlocker, St
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APPLICANT:
APPLICANT:
                                                                                                                                                               APPLICANT: Algaté, Paul A.
APPLICANT: Fling, Steve P.
APPLICANT: Mannion, Jane
APPLICANT: Mannion, Jane
APPLICANT: Benson, Darrin R.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.523
                                                                                                                            CURRENT APPLICATION NUMBER: US/09/864,864
CURRENT FILING DATE: 2001-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lodes, Michael J.
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Dillon, Davin C.
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US-10-140-474-173
US-10-143-114-173
US-10-140-002-173
US-10-143-262-173
US-10-143-262-173
US-10-143-263-173
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0 US-09-864-864-228
0 US-09-864-573B-10
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Sequence 174, App
Sequence 479, App
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		CAGTAAGCGAACAGA	sSerLysArgThrAs	CGAGGATGAACTCAT	rGluAspGluLeuIl	ATCGACTCAGATAT	yIleAspSerAspIl	CTACGTACGTGTAGT	nTyrValArgValVa	GATATGTGACCGGAT	ıValCysAspArgMe	STCAGTGGTGGAGGT	nSerValValGluVa	GTGGACCCCAAGAA	yValAspProLysLy	GATCTCCACTGTGG	nAspLeuHisCysGl	US-10-082-502-21 (1-162) x BM832828	97.99% 14
		TCTTTGTGACCATGO	pLeuCysAspHisAl	TGAATTCTTTTCCCG	eGluPhePheSerAr	TAGCGGCACCCTCAA	eSerGlyThrLeuLy	GGGCCGGAATGGAGA	lSerArgAsnGlyGl	GAAGGAGTATGGGGA	tLysGluTyrGlyGl	GCCTTATGCCCGCTC	lProTyrAlaArgSe	GACCATTCAGATGGG	sThrIleGlnMetGl:	AGCATGCAGGGCTCT	yAlaCysArgAlaLe	(1-588)	Indels: Gaps:
			AspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisArgSerHisAsp		gGluAlaAspAsnValLys	GTTTGCGTGTGAGAGCATT	sPheAlaCysGluSerIle		H1sArgLysAsnTyrValArgValValSerArgAsnGlyGluSerSerGluLeuAspLeu	CTGCTGGAGGAGATATGTGACCGGATGAAGGAGTATGGGGGAACAGATTGATCCTTCCACC	LeuLeuGluGluValCysAspArgMetLysGluTyrGlyGluGlnIleAspProSerThr	GATGGCAGCCAGTCAGTGGAGGTGCCTTATGCCCGCTCAGAGGCCCACCTCACAGAG	AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu		GluIleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro		ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp		00
		541	160	481	140	421	120	361	100	301	80	241	60	181	40	121	20		
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Search completed: March 31, 2003, 04:51:14 Job time : 1041.65 secs

FEATURES

COMMENT

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DB:
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                                                                 ValGluGluTyrGluAspGluLeuIleGluPhePheSerArgGluAlaAspAsnValLys 140
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Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.llnl.gov) for further i
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/db_xref="taxon:10090"
/clone="IMAGE:1548981"
/clone_lib="Soares_mammary_gland_NMLMG"
/sex="female (lactating)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /tissue_type="mammary gland"
/lab_host="DH10B"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: yongsung@mail.kribb.re.kr
Plate: 11 row: B column: 03
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                                                                                                                                        Jonce—"Organ: Stomach; Vector: pTZ18RP1; Site_1: EcoR1;
Site_2: Not1; The poly (A)+ RNA was decapped with tabacco
acid pyrophosphatase (TAP) and ligated with DNA-RNA linker
including EcoR1 site by treatment of T4 RNA 11gase. The
first strand cDNA was synthesized from oligo dT-selected
mRNA by priming with dT-tailed vector. The dT-tailed
vector was adjusted to have about 60nt. The cDNA vector
was circularized with E. coli DNA ligase after digestion
of EcoR1 which site is also included in vector. An RNA
strand converted to a DNA strand by Okayama-Berg method.
The obtained cDNA vectors were used for transformation of
competent cells E. coli ToplOF' by electroporation method.
After analyzing and sequencing about 2,000 - 3,000
colonies in original cDNA library, the abundant cDNAs were
selected and amplified by PCR reaction using vector region
primer including T7 promotor as 5' primer and N(dT)14 as
3' primer. The PCR products were used as template for
synthesis of biotinylated single stranded RNA by in vitro
transcription reaction. The synthesized RNA probes were
hybridized with antisense single stranded RNA probes were
hybridized with antisense single stranded cDNAs prepared
from original liberary and incubated with avidin gel.
After removing DNA-RNA hybrids by centrifuge, the
subtracted cDNA libraries were constructed by
transformaion of the remaining DNA into competent cells E.
coli ToplOF' with electroporation method."
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Location/Qualifiers
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/cell_line="SNU-484"
/lab_host="Top10F'"
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/clone_lib="S5SNU484s1"
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/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                        mRNA sequence.
BI411532
BI411532.1 GI:
EST.
                                                                                                           http://image.llnl.gov
http://image.llnl.gov
Plate: LLAM11294 row: c column:
High quality sequence start: 4
High quality sequence stop: 701.
Location/Qualifiers
                                                                                                                                                                              Bonaldo, Ph.D.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by:Incyte Genomics, Inc.

Clone distribution: NCI-CGAP clone distribution informati-
found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                      NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; 1 (bases 1 to 709)
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602965126F1 NCI_CGAP_Lu33
                                                                                                                                                                                                                                                              Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
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                                                                                                                                                                                                                                                                                                                                                                                              house mouse.
                                                                                                                                                                                                                                                cDNA Library Preparation: M. Bento
/organism="Mus musculus"
/strain="CZECH II"
/db_xref="taxon:10090"
/clone="IMAGE:5120574"
/clone_lib="NCI_CGAP_Lu33"
/tissue_type="pooled lung tumors"
/lab_host="DH108 (phage-resistant)"
/note="Organ: lung; Vector: pT7T3D-Pac (P
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REFERENCE AUTHORS TITLE

NCI-CGAP

http://www.ncbi:nlm.nih.gov/ncicgap. Cancer Institute, Cancer Genome Anatomy

Project

(CGAP),

Eukaryota; Metazoa; Mammalia; Eutheria; 1 (bases 1 to 549)

Chordata; Craniata; Vertebrata; Rodentia; Sciurognathi; Muridae;

Euteleostomi; ; Murinae; Mus

Mus musculus house mouse

ACCESSION VERSION KEYWORDS SOURCE ORGANISM

RESULT 14 BE198865 LOCUS

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DEFINITION

ug83d11.yl Soares_mammary_gland_NMLMG Mus musculus IMAGE:158981 5' similar to WP:F01F1.11 CE01224 ;, BE198865 BE:8711034

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                                                                        CAGGGCATCCGAATTGACTCAGATATCAGCGGCACCCTCAAGTTTGCGTGTGAGAGCANT
                                                                                                CACCGCAAGAACTACGTACGCGTCGTGAGCCGGAATGGAGAATCCAGTGAACTAGACTTA
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Tissue Procurement: Lothar Hennighausen Ph.D., Robin Humph
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 678)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
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Contact: Robert Strausberg, Ph.D.
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Plate: LLAM8523 row: e
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house mouse
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Mammalia; Eutheria;
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Clone distribution: MGC clone distribution information
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note-"Organ: mammary; Vector: pCMV-SPORT6; Site_1: Sal
Site_2: NotI; Cloned unidirectionally. Primer: Oligo d
Library constructed by Life Technologies. Investigators
providing samples: Lothar Hennighausen/Robin Humphreys,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /tissue_type="tumor, gross tissue"
/dev_stage="7 months"
/lab_host="DH10B"
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/clone="IMAGE:3486696"
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/strain-"C57BL/6J"
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Tissue Procurement: Gilbert Smith,
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National Institutes of Health, Mammalian
Unpublished (1999)
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o Soares, Ph.D.,
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Contact: Hennig S

Contact: Hennig S

Laboraty 123, dept.Lehrach

Max-Planck-Institut fuer Molekulare Genetik

Ihnestr.63-73, D-14195 Berlin, Germany

Tel: +49 30 8413 1612

Tex: +49 30 8413 1812

Email: hennig@molgen.mpg.de

EST's are made from clones being representatives of clone clusters.

Clone clusters were calculated from oligonucleotide fingerprints.
                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Muril 1 (bases 1 to 802)
Yahyawi,M., Hennig,S., Neidhardt,L., Radelof,U., Hermann,I Lehrach,H. and O'Brien,J.
Detection of a high number of novel genes in a 9-day mouse cDNA library normalised by oligonucleotide fingerprinting
                                                                                                                                                                                                                                                                   BF608664 802 bp mRNA linear EST 01-APR-MY1_001606 Mouse 9-day fetus cDNA library ICRFp522 Mus musculus cDNA clone ICRFp522B2440 5', mRNA sequence.
                                                                                                 Unpublished (2001)
Contact: Hennig S
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BE309953.1 GI:
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601091903F1 NCI_CGAP_Mam5
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BACKWARD: 5'-TAATACGACTCACTATAGGG-3'
Seq primer: 5'-ATTTAGGTGACACTATAG-3'
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Mus musculus"
/db_xref="taxon:10090"
/clone="ICRFp522B2440"
/clone_lib="Mouse 9-day fetus cDNA library ICRFp5/clone_lib="Mouse 9-day fetus cDNA library ICRFp5/tissue_type="whole embryo"
/dev_stage="embryonic 9-day"
/dev_stage="embryonic 9-day"
/lab_hogst="E.coli, XLI blue"
/note="Yector: PSVSportl; Site_1: NotI; Site_2: $
Library preparation by oligo_dT priming of RNA. (be ordered from the Resource Center in Berlin, http://www.rzpd.de."

13 a 206 c 243 g 159 t 1 others
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                        GACAAACTTTGCAGTAAGCGGACAGATCTATGTGACCATGCCCTGCACAGATCTCATGAT 157
                                                                                                                                                                                                  CAGGGTATCCGAATCGATTCAGATATCAGTGGCACCCTCAAGTTTGCGTGTGAGAGCATT
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Seq primer: Ml3 Forward
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TAG_TISSUE=duodenum
TAG_SEQ=TGTGGTTCAT"
a 183 c 145 g
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/note="Vector: p773D-Pac (pharmacia) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; UI-R-EB1 is a non-normalized Rat Duodenum library (RDU) constructed in p73T7 PAC vector according to the procedure described by Bonaldo, Lennon & Soares (Genome Research Genome 6: 791-806, 1996). The oligonucleotide used to remine first strand synthesis contained the sequence tag TGTGGTTCAT between the Not I cloning site and dT18 stretch. The Rat Deuodenum tissue was provided by Tom Freeman of the Sanger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /strain="Sprague-Dawley"
/db_xref="taxon:10116"
/clone="UI-R-EB1-cle-b-02-0-UI"
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/dev_stage="adult"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Soares, MB
Program for Rat Gene Discovery and Mapping
University of Iowa
451 Eckstein Medical Research Building Iowa City, IA 52242, USA
7el: 319 335 8250
Fax: 319 335 9565
Email: msoares@blue.weeg.uiowa.edu
The sequence contained an oligo-dT track that was present in the
oligonuclectide that was used to prime the synthesis of first
strand cDNA and therefore this may represent a bonafide poly A
tail. The sequence tag present in the cDNA between the NotI site
and the oligo-dT track served to verify it as a clone from the
normalized cartilage library cDNA Library Preparation: M.B. Soares
Lab Clone distribution: clones will be available through Research
Genetics (www.resgen.com)
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Bonaldo, M.F., Lenno
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                                                                   156
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                                                                                                                                                                /note-"Organ: Femur and Tibla; Vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; UI-R-DYI is a normalized cDNA library containing the following tissue(s): Rat Cartilage from Femur and Tibla. The library was constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA synthesis was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to an EcoR I adaptor, digested with Not I, and cloned directionally into pT7T3-Pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I site and the (dT)18 tail. The sequence tag for this library is CTAATGGACG. The Rat cartilage tissue was provided by Dr Jeff Stevens at the
                                                               TAG_TISSUE-cartilage
TAG_SEQ-CTAATGGACG"
206 c 157 g
                                                                                                                              TAG_LIB=UI-R-DYI
                                                                                                                                                     University of Iowa.
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/db_xref="taxon:10116"
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                                                                                                                                                                                                                                                                                                                                                      Fax: (301)-838-0208
Email: nhlee@tigr.org
This clone is available through the ATCC,
tel#703-365-2700 for further information
Seq primer: M13 Reverse.
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Mammalia; Eutheria; Rodentia;
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AW919569
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Contact: Lee, NH
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Lee, N.H., Glodek, A., Chandra, I., Mason, T.M.,
Kerlavage, A.R. and Adams, M.D.
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2, Medical Center Drive,
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Bento Soares"
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Bonaldo, M.F., Lennon
Normalization and sul
discovery
Email: mosares@blue.weeg.ulowa.edu
Email: mosares@blue.weeg.ulowa.edu
The sequence contained an oligo-dT track that was present in the
oligonucleotide that was used to prime the synthesis of first
strand cDNA and therefore this may represent a bonafide poly A
tail. The sequence tag present in the cDNA between the NotI site
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UI-R-EB1-cle-b-02-0-UI 3', mRNA sequence.
                                                                    Program for Rat Gene Discovery and Mapping University of Iowa 451 Eckstein Medical Research Building Iow Tel: 319 335 8250
Fax: 319 335 9565
                                                                                                                                                                                                                                                            Rattus norvegicus
                                                                                                                                   Contact: Soares,
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                                                                                                    Hayashizaki,Y.
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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        (18-AUG-2000) Yoshihide Hayashizaki, The Institute
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41 AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu
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US-10-082-502-21 (1-162) x AK019927 (1-1255)
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Best Local Similarity:
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                                                                  21 GluIleAlaArgValAspProLysLysThrIleGlnMetGlySerPheArgIleAsnPro 40
                                                                                            1 ArgArgSerGlnAspLeuHisCysGlyAlaCysArgAlaLeuValAspGluLeuGluTrp
end: BamHI. Host: DH10B.
Location/Qualifiers
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Fax:81-45-503-9216)
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VDPKKTIQMGSFRINPDGSQSVVEVPYARSEAHLTELLEEVCDRMKEYGEQIDPSTHR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transmembrane protein 4°
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9216)

URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9227, Fax:81-45-503-9216)
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Direct Submission
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                                      /clone_lib="RIKEN full-length enriched mouse cDNA library"
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                                                        AK019927

Mus musculus adult male pituitary gland cDNA, RIKEN full-length enriched library, clone:5330432A10:transmembrane protein 4, full
                                    insert sequence.
AK019927
                        AK019927.1 GI:12860332
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1 209 c 261 g 1
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/translation="MKGWGWLALLLGVLLGTAWARRSQDLHCGACRALVDELEWEIAR
/translation="MKGWGWLALLLGVLLGTAWARRSQDLHCGACRALVDELEWEIAR
VDPKKTIOMGSGSIVEVYVARSEAHLTELLEEVCDEWKEYGEQIDPSTHR
KNYVRVVSRNGESSELDLQGIRIDSDISGTLKFACESIVEEYEDELIEFFSREADNVK
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evidence:ISS
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/protein_id="BAB28597.1"
/db_xref="GI:12850115"
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musculus

(strain:C57BL/6J) adult male

pituitary gland cDNA to

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602990995F1 NCI_CGAP_Lu33 Mus
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Plate: LLAM11362 row: n column: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              National Institutes of Health, Mammalian Gene Collection (MGC)
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NIH-MGC http://mgc.nci.nih.gov/.
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Location/Qualifiers
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Shinagawa, A.,
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ValGluGluTyrGluAspGluLeuILeGluPhePheSerArgGluAlaAspAsnValLys 140
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Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kitsunai,T., Tashiro,H., Itoh,M., Sumi,N., Ishii,Y., Nakamura,S., Hazma,M., Nishine,T., Harada,A., Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegmmi,T., Kashiwagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y., Sikikawa,T., Ozawa,K., Tanaka,T., System-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                            Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
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Mus musculus 10, 11 days embryo whole body cDNA,
enriched library, clone:2810406L24:transmembrane
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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Shibata, K.,

Yoshino, M.,

Itoh, M.,

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602964995F1 NCI_CGAP_Lu33 M
mRNA sequence.
BI408525
BI408525.1 GI:15169448
EST.
                                  house mouse.
Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; V
Mammalla; Eutherla; Rodentla; Sclurognath
1 (bases 1 to 808)
11 (bases 1 to 808)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg,
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert
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/translation="MKGWGWLALLLGVILLGTAWARRSQDLHCGACRALVDELEWEIAR
vDpkKTIQMGSFRINPDGSQSVEVPYARSEAHLTELLEEVCDRMKEYGEQIDPSTHR
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http://image.llnl.gov
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Kawai,J., Shinagawa,A., Shibata,K., Yoshino,M., Itoh,M., Ishii,Y., Arakawa,T., Hara,A., Fukunishi,Y., Konno,H., Adachi,J., Fukuda,S., Alzawa,K., Izawa,M., Nishi,K., Kiyosawa,H., Kondo,S., Yamanaka,I., Saito,T., Okazaki,Y., Gojobori,T., Bono,H., Kasukawa,T., Saito,R., Kadota,K., Matsuda,H., Ashburner,M., Bataloy,S., Casavant,T., Fleischmann,W., Gasaterland,T., Gissi,C., King,B., Kochiwa,H., Kuehl,P., Lewis,S., Matsuo,Y., Nikaido,I., Pesole,G., Quackenbush,J., Schriml,L.M., Staubli,F., Suzuki,R., Tomita,M., Wagner,L., Washio,T., Sakai,K., Okido,T., Furuno,M., Aono,H., Baldarelli,R., Barsh,G., Blake,J., Boffelli,D., Bojunga,N., Carninci,P., de Bonaldo,M.F., Brownstein,M.J., Bult,C.,
                                                                                                                                                                                                                                                                                                         Shibata, K., Itoh, M., Alzawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Harada, A., Yamamoto, R., Matsunoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
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Mus musculus (strain:C57BL/6J) 10

mRNA, clone_lib:RIKEN full-length
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19–44 (1999)
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  /codon_start=1
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/db_xref="GI:12841774"
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source key:MGI:1928477

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Adachi, J., Aizawa, K., Akahira, S., Akimura, T., Aono, H., Arai, A., Arakawa, T., Baldarelli, R., Bono, H., Brownstein, M., Bult, C., Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanagaki, T., Hara, A., Hayatsu, N., Hill, D., Hiramoto, K., Hiraoka, T., Hori, F., Hume, D., Imotani, K., Ishii, Y., Itoh, M., Izawa, M., Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Quackenbush, J., Saito, H., Saito, R., Sakai, C., Sakai, K., Sho, H., Sasaki, D., Schriml, L., Shibata, K., Shibata, Y., Shinagawa, A., Shiraki, T., Tanaka, T., Tajima, Y., Toya, T., Yamamura, T., Yananaka, I., Yasunishi, A., Yoshida, K., Yoshino, M., Muramatsu, M. and Hayashi, A., Yoshida, K., Yoshino, M., Muramatsu, M. and
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                                                               Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome-gsc.riken.go.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
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                                           SstI. Host: SOLR
Location/Qualifiers
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Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222,
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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Please visit our web site (http://genome.gsc.riken.go.jp/)
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-DB-EST -OFMT-fastap -SUFFIX=rst -MINMATCH=0.1 -LOOPEXT=0
-UNITS=blits -START=1 -END=-1 -MATRIX-blosum62 -TRANS-human40.cdi -LIST=45
-DCGALIGN=200 -THR_SCORE-pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE-LOCAL \
-OUTFMT-pto -NORM-ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER-US10082502_@CGN_1_5425_@runat_24032003_135100_6599 -NCDU=6 -ICPU=3
-NO_XLPXY -NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -LONGLOG -DEV_TIMEOUT=120
-WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPOX=0.5 -FGAPOX=6 -FGAPEXT=7
-YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

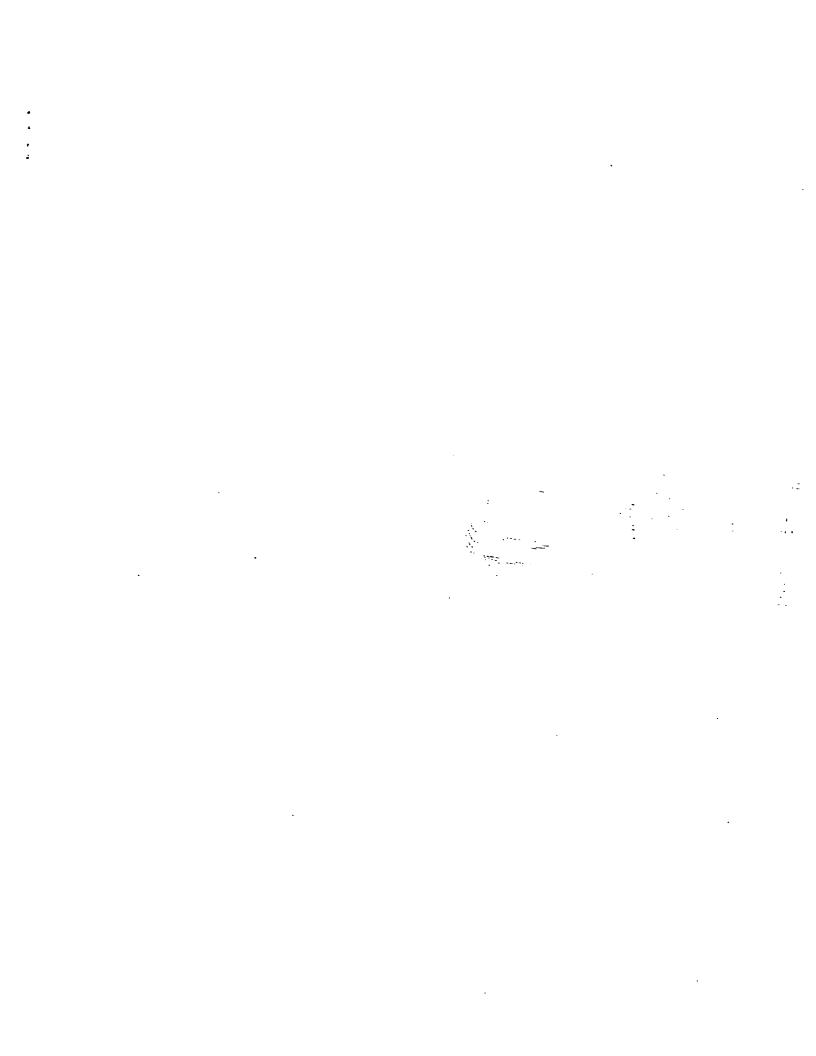
SUMMARIES

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30708 47e01 30479 31931 30497	603193045 603170602 603170466 603049829 601447464 uu096c08.y uu096c08.x 503048045	601581586 AGENCOURT AGENCOURT 1d98f09.x AGENCOURT 603192905 603192905 602688633	602964013 602965126 w.g83d11.y w.g83d11.y r.eST0107 K-EST0107 1d98f09.y UI-R-DY1- AGENCOURT 602014708 602156837	n muscu Mus muscu 602964995 602990995 muscu Mus muscu EST350873 UI - R - EB1 - 101 - R - E91 - 00160	

ALIGNMENTS

SOURCE	KEYWORDS	VERSION	ACCESSION			DEFINITION	LOCUS	AK013568	RESULT 1
Mus musculus (strain:C57BL/6J) adult male hippocampus cDNA to mRNA,	HTC; CAP trapper.	AK013568.1 GI:12850979	AK013568	insert sequence.	enriched library, clone:2900022B12:transmembrane protein 4, full	IS CDNA,	AK013568 754 bp mRNA linear HTC 19-JAN-2002		

ORGANISM clone_lib:RIKEN full-length enriched mouse cDNA library clone:2900022812.
Mus musculus
Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus



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rGlnSerValValGluValpr
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61 1	225 G	41 A
	225 GATGGCAGCCAGTTGTGGAGGTACCTTATGCCCGCTCAGAGGCCCCACCTCACAGAG 284	41 AspGlySerGlnSerValValGluValProTyrAlaArgSerGluAlaHisLeuThrGlu 60

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Search completed: March 30, 2003, 22:42:58 Job time: 130.151 secs

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[₽] 141 AspLysLeuCysSerLysArgThrAspLeuCysAspHisAlaLeuHisIleSer-HisAs 160

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